



**25th RESEARCH
DAYS**

Postgraduate Program in Ophthalmology & Visual Sciences

DECEMBER 7 - 8 , 2023

Organization

Sponsor



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The meeting **Research Days | UNIFESP-EPM** is held annually since 1999 and aims to stimulate and improve scientific production at the **Department of Ophthalmology & Visual Sciences | Paulista School of Medicine | Federal University of Sao Paulo - UNIFESP**. **Research Days** includes presentation of papers, fast papers and posters by residents, fellows and postgraduate students enrolled in the Postgraduate Studies Program in Ophthalmology and Visual Sciences. Papers and posters are presented in English and active discussion with the faculty is prioritized. The scientific studies at each educational level (resident, fellow, and postgraduate student) are judged and the best in each category receive an award.

An active participation of the faculty as discussants and the participation of well-known investigators in the scientific program are encouraged. Registration is free and open to Postgraduate programs in Brazil and Latin America. We consider the presentations of our team of students at the **Research Days** as a first step to preparing them to participate in and interact with colleagues at international meetings.

The **25th Research Days | UNIFESP-EPM** will be held in São Paulo from December 07 to 08, 2023. Please visit our homepage <https://oftalmodapaulista.com.br/pg/mda/?p=526> for the complete Scientific Program and additional information.

Marcos Lindenberg Theater – UNIFESP
697, Pedro de Toledo Street

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PROGRAM AT A GLANCE

December 07, 2023 - Thursday

8:00-8:05 AM	OPENING REMARKS	Ivan Maynard Tavares and Mauro Campos
8:05-8:10 AM	OPENING REMARKS ESCOLA PAULISTA DE MEDICINA	Magnus R. D. da Silva (DIRECTOR), Marimelia A. Porcionatto (VICE-DIRECTOR) and Nacime Mansur (DIRECTOR HU)
8:10-8:20 AM	Getting to know the CAPES Evaluation System	Denise de Freitas
8:20-9:10 AM	PAPER PRESENTATION - SESSION 1	GLAUCOMA Moderators: Augusto Paranhos Jr., Ivan Maynard Tavares and Tiago Prata
9:10-09:40 AM	INVITED LECTURE HELENA NADER	
09:40-10:10 AM	INVITED LECTURE RUBENS BELFORT JR.	
10:10-10:20 AM	Discussion and Interview	
10:20-10:40 AM	COFFEE BREAK and POSTER DISCUSSION Glaucoma(7) , Retina and Vitreous (12), Uveites (2), Strabismus (3) and Low vision (2)	
10:40-11:45 AM	PAPER PRESENTATION - SESSION 2	UVEITIS, ONCOLOGY, OCULAR ULTRASOUND AND NEURO-OPHTHALMOLOGY Moderators: Cristina Muccioli, Rubens Belfort Jr and Norma Allemann
11:45-12:10 AM	PAPER PRESENTATION SESSION 3	EPIDEMIOLOGY, ELECTROPHYSIOLOGY,ULTRASOUND, LOW VISION AND STRABISMUS Moderators: Solange Rios Salomão, Adriana Berezovsky and Norma Allemann
12:20-1:20 PM	LUNCH BREAK	
1:20-2:30 PM	PAPER PRESENTATION SESSION 4	RETINA AND VITREOUS AND PHARMACOLOGY Moderators: Maurício Maia and Juliana Sallum
2:30-3:00 PM	INVITED LECTURE LUIZA MENDONÇA	The role of Reading Centers in Clinical Trials in Retina
3:00-3:05 PM	Discussion and Interview	
3:05-3:20 PM	COFFEE BREAK AND POSTER DISCUSSION Cornea and External Diseases (11), Refractive surgery (2), Cataract (2), Laboratory (2), Trauma (3), Oncology (1), Oculoplastics Surgery (4), Orbit(2), Epidemiology (1), Oculoplastics Surgery (4) and Neuro-Ophthalmology (1)	
3:20-4:40 PM	PAPER PRESENTATION SESSION 5	RETINA AND VITREOUS AND PHARMACOLOGY Moderators: Michel Eid Farah, Caio Regatieri and Eduardo Rodrigues
4:40-6:35 PM	PAPER PRESENTATION SESSION 6	REFRACTIVE SURGERY, CATARACT, BIOENGINEERING, LACRIMAL SYSTEM, OCULOPLASTICS SURGERY, LABORATORY AND TRAUMA Moderators: Paulo Schor, Wallace Chamon, Walton Nosé, Mauro Campos, Renato Ambrósio Jr. and Tammy Hentona Osaki
5:10-5:30PM	INVITED LECTURE CARSTEN H. MEYER - MACULAR HOLES HYDRODISSECTION	
6:35PM	END OF SESSION	

December 08, 2023 – Friday

8:00 – 9:15 AM	PAPER PRESENTATION SESSION 7	CORNEA AND EXTERNAL DISEASES Moderators: Lauro Augusto de Oliveira, Denise de Freitas, Luciene Barbosa de Sousa
8:00 – 8:30 AM	INVITED LECTURE ANA GALES - APPROVING FINANCING : CEPID	
9:15-09:35 AM	PAPER PRESENTATION SESSION 8	CORNEA AND EXTERNAL DISEASES Moderators: Ana Luisa Hofling-Lima, José Álvaro Pereira Gomes
09:35-09:55 AM	COFFEE BREAK and POSTER DISCUSSION Cornea and External Diseases (11), Refractive surgery (2), Cataract (2), Laboratory (2), Trauma (3), Oncology (1), Oculoplastics Surgery (4), Orbit(2), Epidemiology (1), Oculoplastics Surgery (4) and Neuro-Ophthalmology (1)	
9:55AM-13:00PM	PAPER PRESENTATION SESSION 9	CORNEA AND EXTERNAL DISEASES Moderators: Ana Luisa Hofling-Lima, José Álvaro Pereira Gomes
10:00-10:30 AM	INVITED LECTURE SANDEEP JAIN - DRY EYE PATHOLOGICAL SPECTRUM - FROM AUTOINFLAMMATION TO AUTOIMMUNITY	
11:10-11:40 AM	INVITED LECTURE MIGUEL BURNIER - DISCOVERING THE PATHOGENESIS OF METASTASIS IN UVEL MELANOMA: THE ROLE OD DUAL NATURE CELLS IN THE PRIMARY & METASTATIC MELANOMAS	
13:00 PM	FINAL REMARKS AND AWARDS ANNOUNCEMENT Denise de Freitas, Ivan Maynard Tavares, Luiz Alberto Soares and Caio Regatieri	

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Information

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Mauricio Maia

Invited Speakers

Helena Bonciani Nader

Rubens Belfort Jr.

Sandeep Jain

Ana Gales

Carsten H. Meyer

SCIENTIFIC PROGRAM

December 07, 2023 – Thursday

8:00-8:05 AM	OPENING REMARKS	Ivan Maynard Tavares and Mauro Campos
8:05-8:10 AM	OPENING REMARKS ESCOLA PAULISTA DE MEDICINA	Magnus R. D. da Silva (DIRECTOR), Marimelia A. Porcionatto (VICE-DIRECTOR) and Nacime Mansur (DIRECTOR HU)
8:10-8:20 AM	Getting to know the CAPES Evaluation System	Denise de Freitas
SESSION 1	PAPER PRESENTATION	
8:20-9:10 AM	GLAUCOMA Moderators: Augusto Paranhos Jr., Ivan Maynard Tavares and Tiago Prata	
8:20-8:27 AM	The use of a new wireless type IV polysomnography to evaluate the association between obstructive sleep apnea syndrome and glaucoma: a prospective cross-sectional study	Guilherme Barreto de Oliveira Ribeiro PG0
8:30-8:37 AM	Correlation between Structure, Function and Oxygenation in Glaucoma	Gilvan da Silva Filho Vilarinho PG1
8:40-8:47 AM	Escotometry guided by standard perimetry using microperimetry in glaucoma patients.	Gustavo Coelho Caiado PG1
8:50-8:53 AM	Detecting structural progression in glaucoma through automated optic nerve head hemoglobin measurements	Janaina Andrade Guimarães Rocha PG1
8:55-8:58 AM	Randomized Clinical Trial: Effects of Melatonin Replacement on Sleep Quality of Patients with Advanced Glaucoma	Priscilla Fernandes Nogueira PG1
9:00-9:03 AM	Eyetracker reading patterns in Glaucoma Patients vs. Control Patients	Mariana Chiba Ikeda PG1
9:05-9:08 AM	The effectiveness of the current clinical paradigm for the diagnosis of glaucoma	Paula Azevedo Alhadef PG1
9:10-09:40 AM	INVITED LECTURE HELENA NADER	
09:40-10:10 AM	INVITED LECTURE RUBENS BELFORT JR.	
10:10-10:20 AM	Discussion and Interview	
10:20-10:40 AM	COFFEE BREAK and POSTER SESSION	
SESSION 2	PAPER PRESENTATION	
10:40-11:45 AM	UVEITIS, ONCOLOGY, OCULAR ULTRASOUND AND NEURO-OPHTHALMOLOGY Moderators: Cristina Muccioli, Rubens Belfort Jr and Norma Allemann	
10:40-10:47 AM	Different Doses of Periocular Steroid in Uveitic Macular Edema: A Prospective, Randomized Clinical Trial	Carlos Eduardo de Souza PG1
10:50-10:57 AM	Differential Proteins Expression Distinguished Between Patients With Infectious and Noninfectious Uveitis	Carmen Luz Pessuti PG1
11:00-11:07 AM	High doses of vitamin d in the treatment of autoimmune uveitis	Karine Koller PG1
11:10-11:17 AM	Postmortem Ultrastructural Analysis of the Retina from COVID-19 Deceased Patients	Paula Marques Marinho PG1
11:20-11:27 AM	Ocular Surface Specimen Handling by Ophthalmic Surgeons - Enabling Quality in Pathology Evaluation	Melina Correia Morales PG1
11:30-11:37 AM	Ocular growth in children with congenital Zika syndrome: 7-year follow-up	Thayze Melo Martins PG1

SESSION 3 PAPER PRESENTATION

11:45-12:10 AM EPIDEMIOLOGY, ELECTROPHYSIOLOGY, ULTRASOUND, LOW VISION AND STRABISMUS
Moderators: Solange Rios Salomão, Adriana Berezovsky and Norma Allemann

11:45-11:52 AM	Ultrasound biomicroscopy (UBM) findings in pigmented nevi of the iris and ciliary body	Mariana Borges Barcellos Dias	PG0
11:55-12:02 AM	Visual rehabilitation through assistive technology adaptation in low vision	Paula Baptista Eliseo da Silva	PG1
12:05-12:08 PM	Epidemiological statistical analysis comparing public and private care, in the Ophthalmology Emergency Room in the city of São Paulo, involving Hospital São Paulo x H.Olhos	Pedro Antonio Nogueira Filho	PG0
12:10-12:13 PM	Real World Evidence of the Use of Cloudscaper Optotypes versus LEA Symbols for Virtual/Digital Visual Acuity Measurement in Children 3 to 16 Years	Cristiana Ronconi Lopes	PG1
12:15-12:18 PM	Preliminary study of the children's functional vision assessment (CFVA) protocol for children with visual disability adapted for remote consultation.	Ana Carolina Carneiro	PG0
12:20-1:20 PM	LUNCH BREAK		

SESSION 4 PAPER PRESENTATION

1:20-2:30 PM RETINA AND VITREOUS AND PHARMACOLOGY
Moderators: Maurício Maia and Juliana Sallum

1:20-1:27 PM	A polysomnographic study of effects of sleep deprivation on novice and senior surgeons during simulated vitreoretinal surgery	Marina Roizenblatt	POST DOC
1:27-1:30 PM	Biomarkers analysis of oct angiography and optical coherence tomography exams in patients with macular edema treated with anti vegf	Marcussi Palata Rezende	PGO
1:30-1:37 PM	A longitudinal analysis of the efficacy and security of a new antiangiogenic drug derived from chemically modified heparin mimetics (MHep), both isolated and combined with anti-VEGF	Alex Treiger Grupenmacher	PG1
1:40-1:47 PM	Diagnosis and histopathological evaluation of soft drusen in patients that underwent visceration and enucleation	Anelise Savaris Dias	PG1
1:50-1:57 PM	Ocular and Neurological Findings in a cohort of Brazilian patients with Spinocerebellar Ataxias	Bruna Ferraco Marinelli	PG1
2:00-2:07 PM	The rehabilitation scenario for people with retinal disease in Brazil: An exploratory study	Cecilia Francini Cabral Vasconcellos	PG1
2:10-2:13 PM	Structural and vascular assessment of the optic disc in chronic chagas disease	Cristiana Lumack do Monte Agra	PG1
2:15-2:18 PM	Correlations Among Subfoveal Choroidal Thickness, Macular Thickness, and Visual Outcome in Neovascular Age-related Macular Degeneration Using Swept Source OCT: Insights from Intravitreal Aflibercept Treatment	Daniel Prado Beraldo	PG1
2:20-2:23 PM	Outcomes Of Intraocular Lens Exchange With Combined Pars Plana Vitrectomy And Retropupillary Iris-Claw Intraocular Lens Fixation	Denise Pardini Marinho	PG1
2:25-2:28 PM	Postural alignment in children with congenital Zika syndrome-related visual impairment	Raine Borba Arruda	PG1

2:30-3:00 PM INVITED LECTURE
LUISA MENDONÇA – The role of Reading Centers in Clinical Trials in Retina

3:00-3:05 PM Discussion and Interview

3:05-3:20 PM COFFEE BREAK and POSTER DISCUSSION
Cornea and External Diseases (11), Refractive surgery (2), Cataract (2), Laboratory (2), Trauma (3), Oncology (1), Oculoplastics Surgery (4), Orbit(2), Epidemiology (1), Oculoplastics Surgery (4) and Neuro-Ophthalmology (1)

SESSION 5 PAPER PRESENTATION

3:20-4:40 PM RETINA AND VITREOUS AND PHARMACOLOGY

Moderators: Michel Eid Farah, Caio Regatieri and Eduardo Rodrigues

3:20-3:27PM	Placebo-Controlled Trial of Oral Lamivudine for Diabetic Macular Edema	Felipe Pereira	PG1
3:30-3:37PM	Automated machine learning model for fundus Image classification by health-care professionals with no coding experience	Lucas Zago Ribeiro	PG1
3:40-3:47PM	De-identification and obfuscation of sensitive attributes from retinal scans	Luis Filipe Nakayama	PG1
3:50-3:57PM	Superseletive intra-arterial chemotherapy for advanced intraocular Retinoblastoma.	Luiz Fernando Teixeira	PG1
4:00-4:07PM	Telementoring versus face-to-face mentoring in the training of scleral fixation surgery of intraocular lenses	Luiz Filipe Adami Lucatto	PG1
4:10-4:17PM	Mathematical modeling for drug delivery and inflammation process: an application in macular edema	Mariana Batista Goncalves	PG1
4:20-4:23PM	Analysis of the incidence of endophthalmitis after cataract surgery, before and after use of intracameral moxifloxacin and comparative analysis between public and private services.	Vinicius Campos Bergamo	PG1
4:25-4:28PM	Silicone oil droplets released from intravitreal injections of Aflibercept and Bevacizumab on Muller Cells (MIO-MI) in vitro	Paula Sakemi Fukuhara	PG1
4:30-4:33PM	Surgical technique for removal of high-density silicone oil (Oxane HD)	Ramon Antunes de Oliveira	PG1
4:35-4:38PM	Plasma ceramides role in diabetic retinopathy	Erika Sayuri Yasaki	PG1

SESSION 6 PAPER PRESENTATION

4:40-6:35 PM REFRACTIVE SURGERY, CATARACT, BIOENGINEERING, LACRIMAL SYSTEM, OCULOPLASTICS SURGERY, LABORATORY AND TRAUMA

Moderators: Paulo Schor, Wallace Chamon, Walton Nosé, Mauro Campos, Renato Ambrósio Jr. and Tammy Hentona Osaki

4:40-4:47PM	A systematic review of observational studies on the use, maintenance and care of contact lenses.	Helena Maria Costa Oliveira	PG0
4:50-4:57PM	Corneal High Order aberrations and Epithelial remodeling in Femtolasik Topoguided and customized asphericity in contralateral eye: randomized double-blind prospective study	Adriana Falcão Lyra	PG1
5:00-5:07PM	In vivo optical performance and wavefront analysis of a new monofocal intraocular lens designed to enhance depth of focus thru positive spherical aberration	Arthur Buffara Van Den Berg	PG1
5:10-5:30PM	INVITED LECTURE		
	CARSTEN H. MEYER - Macular Holes Hydrodissection		
5:30-5:35PM	Discussion and Interview		
5:35-5:42PM	Enhanced Pentacam Index (EPI): structurally characterizing the preoperative patient's corneal stroma.	Aydano Pamponet Machado	PG1
5:45-5:57PM	Perceptions of patients undergoing LASIK with monovision for the treatment of Presbyopia: a qualitative study.	Ermano de Melo Alves	PG1
6:00-5:07PM	Multiclass classification of normal and keratoconus cornea curvature maps using distinct convolutional neural networks	Felipe Marques de Carvalho Taguchi	PG1
6:10-6:17PM	Visual quality, high order aberrations and centralization of 3 types of diffractive lenses implanted in patients undergoing phacoemulsification.	Ivan Corso Teixeira	PG1
6:20-6:23PM	Enhanced Monofocal versus Extended Depth of Focus Intraocular Lens: Evidence Based on Meta- Analysis	Leonardo Almeida Cabral	PG1
6:25-6:28PM	Value-based Health Care Analysis in Cataract Surgery	Raphael de Faria Schumann	PG1



Postgraduate Program in Ophthalmology & Visual Sciences

6:30-6:33PM	Accuracy, Precision, and Residual Volume of Commonly Used Syringes for Intravitreal Injections and the Impact on Intraocular Pressure	Lydianne Lumack do Monte Agra	PG1
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6:35PM **END OF SESSION**

SCIENTIFIC PROGRAM

December 08, 2023 – Friday

SESSION 7			
PAPER PRESENTATION			
8:00 – 9:15 AM			
CORNEA AND EXTERNAL DISEASES			
Moderators: Lauro Augusto de Oliveira, Denise de Freitas, Luciene Barbosa de Sousa			
8:00-8:30 AM			
INVITED LECTURE			
ANA GALES - IMPROVING FINANCING : CEPID			
8:30-8:37 AM	Evaluation of diagnostic methods for Acanthamoeba keratitis, including PCR analysis of corneal scrapings	Renata Cavalcanti Portela Boro	PG0
8:40-8:47 AM	Scheimpflug-derived corneal higher order aberrations post intrastromal corneal ring segments for keratoconus patients	Roberta Matschinske Van Den Berg	PG0
8:50-8:57 AM	Rose Bengal Eletromagnetic Activation with Green Light for Infection Reduction (REAGIR)? a randomized, double-blind, sham-controlled study for treatment of acanthamoeba and fungal keratitis	Camila Kase	PG1
9:00-9:07 AM	Oral Riboflavin and sunlight exposure in the treatment of patients with moderate to severe keratoconus and thin cornea	Edilana Sá Ribeiro Campêlo	PG1
9:10-9:13 AM	Candida species in fungal keratitis: molecular characterization, antifungal susceptibility, biofilm formation, and clinical aspects	Fernanda Machado Bezerra Linhares	PG1
SESSION 8			
PAPER PRESENTATION			
9:15-09:35 AM			
CORNEA AND EXTERNAL DISEASES			
Moderators: Ana Luisa Hofling-Lima, José Álvaro Pereira Gomes			
9:15-9:22 AM	Interventional clinical protocol to evaluate the therapeutic efficacy of 50% autologous serum eye drops in the treatment of corneal epithelial defect in inflammatory diseases of the ocular surface	Ítalo Pena de Oliveira	PG1
9:25-9:32 AM	Inflammatory response in patients diagnosed with Acanthamoeba keratitis	Larissa Fagundes Pinto	PG1
09:35-09:55 AM			
COFFEE BREAK and POSTER DISCUSSION			
Cornea and External Diseases (12), Refractive surgery (2), Cataract (2), Laboratory (2), Trauma (3), Oncology (1), Oculoplastics Surgery (4), Orbit(2), Epidemiology (1), Oculoplastics Surgery (4) and Neuro-Ophthalmology (1)			
SESSION 9			
PAPER PRESENTATION			
9:55AM-13:00 PM			
CORNEA AND EXTERNAL DISEASES			
Moderators: Ana Luisa Hofling-Lima, José Álvaro Pereira Gomes			
09:55-10:25 AM			
INVITED LECTURE			
SANDEEP JAIN - DRY EYE PATHOLOGICAL SPECTRUM - FROM AUTOINFLAMMATION TO AUTOIMMUNITY			
10:25-10:32 AM	Corneal Confocal Microscopy Findings in Patients with Primary Sjögren's Syndrome and Small Fiber Neuropathy	Laura Caldas dos Santos	PG1
10:35-10:42 AM	Prevalence and Risk Factors for Dry Eye Disease: the Sao Paulo Dry Eye Study	Leonardo Guedes Candido Marculino	PG1
10:45-10:52 AM	Keratoconus and Corneal Ectasia with relatively low keratometry	Louise Pellegrino Gomes Esporcatte	PG1
10:55-11:07 AM	Comparison between Intrastromal Injection of autologous blood and C3F8 Injection for the treatment of Severe Acute Corneal Hydrops	Lucas Baldissera Tochetto	PG1
11:10-11:40 AM			
INVITED LECTURE			
MIGUEL BURNIER - DISCOVERING THE PATHOGENESIS OF METASTASIS IN UVEL MELANOMA: THE ROLE OD DUAL NATURE CELLS IN THE PRIMARY & METASTATIC MELANOMAS			

11:40-11:47 AM	Ocular, oral and gut microbiomes characterization of patients with Stevens-Johnson Syndrome, Sjogren Syndrome and healthy patients	Luciana Frizon	PG1
11:50-11:57 AM	Corneal transplantation in patients with Acanthamoeba Keratitis	Luciana Lopes Rocha	PG1
12:00-12:07 PM	Analysis of riboflavin levels in aqueous humor and human corneas after oral absorption.	Ludmila Nascimento Silva	PG1
12:10-12:17 PM	Cyst density and morphological assessment in patients with Acanthamoeba spp. Keratitis using In Vivo Confocal Microscopy	Luiz Guilherme Ito da Cruz	PG1
12:20-12:27 PM	Macromolecular changes in the extracellular matrix of human corneas with keratoconus and after crosslinking with açai (Euterpe oleracea) extract: an ex vivo and in vitro study	Murilo Bertazzo Peres	PG1
12:30-12:37 PM	Adherence of Acanthamoeba spp. isolates to contact lenses after electroporation treatment	Raphael Barcelos	PG1
12:40-12:47 PM	Keratoprosthesis of Brazil (KOBRA): preliminary results of the first 3 human cases.	Otávio de Azevedo Magalhães	POST DOC
13:00 PM	FINAL REMARKS AND AWARDS ANNOUNCEMENT Denise de Freitas, Ivan Maynard Tavares, Luiz Alberto Soares and Caio Regatieri		

POSTERS

December 07, 2023 - Thursday

3:05-3:20 PM POSTER SESSION 1

Glaucoma(7) , Retina and Vitreous (12), Uveites (2), Strabismus (3) and Low vision (2)

Retrospective Evaluation of Cyclophotocoagulation Procedure in Neovascular Glaucoma	José de Paula Barbosa Neto	R1
Reading performance in glaucoma patients vs control patients	Ugor Tomaz Fernandes	R2
Retrospective Evaluation of Cyclophotocoagulation Procedure in Neovascular Glaucoma	Pedro de Faria Gusmão	R2
Retrospective Evaluation of Cyclophotocoagulation in Primary Open-Angle Glaucoma	Frederico Galvani Harckbart Carvalho	R3
Efficacy of GATT (gonioscopy-assisted transluminal trabeculotomy) performed by glaucoma fellow at a training hospital	Samuel Zuccaro Wajsman	R4
The Safety of GATT (gonioscopy-assisted transluminal trabeculotomy) performed by glaucoma fellow at a training hospital	Isabella Loiola Araujo Martins	R4
Prediction of agreement between peripheral scotoma and nerve fiber layer loss in OCT	Luciana Arias Fernandez	Fellow
Development of soft skills for entrepreneurship and innovation in students and professors in medical courses in the face of the Industry 4.0 era in the Health sector	Henrique Lage Ferreira Ferrer	R1
Retinitis Pigmentosa-Like in Spinocerebellar Ataxya Type 7 With Infantile Onset	Daniel Trahtman de Boer	R1
Acute Posterior Multifocal Placoid Pigment Epitheliopathy: Its Natural Evolution and Multimodal Assessment	Luiza Sousa Soares	R1
Anatomic, functional and microperimetric evaluation of treatment of chronic central serous chorioretinopathy with two micropulsed laser strategies	João Gabriel Alexander	R2
Image Artifacts Analysis in Handheld Retinal Fundus Camera Photos	Iago Diógenes Azevedo Costa	R2
Vitreoretinal surgical performance simulation after acute alcohol consumption and next-morning hangover	Arnaldo Roizenblatt	R2
Analysis of tremor in vitreoretinal surgery after alcohol consumption and hangover	Vitor Dias Gomes Barrios Marin	R3
Ophthalmology Optical Coherence Tomography Databases for Artificial Intelligence Algorithm: A Review	Frederico Do Carmo Novaes	R3
Does contact lens wear affect choroidal thickness measurements?	Talita Virginia Fernandes De Oliveira	R4
Analysis of OCT-Angiography findings in patients with acute elevations of intraocular pressure	Juan Fulgencio Welko Mendoza	R4
Correlation between choroid thickness measured by optical coherence tomography and renal function in patients with type 1 diabetes	Marina Moura Costa Spínola	R4
Optical Coherence Tomography Angiographic Evaluation of Macular Vessel Density in Diabetic Macular Edema After Intravitreal Dexamethasone Implants: A Prospective Interventional Trial	Nelson Chamma Capelanes	PG1
Atypical pattern of ocular toxoplasmosis: recurrent inner foveal toxoplasmic retinitis (RIFTER)	Guilherme Macedo Souza	R4
Ocular Tuberculosis: Case Series	Hugo Xavier Rocha Filho	R1
Eficácia, segurança e previsibilidade do PRK associado à crosslinking ultrarrápido de meia fluência de forma simultânea para córneas borderline (PRK Xtra)	Ana Valéria e Vasconcelos França Cortez	R4
Comparison of Strabocheck® with Prism and Alternative Cover Test in Measuring the Ocular Deviation	Felipe Moreira da Cruz	Fellow
Statistical Analysis of the prevalence of strabismus in patients with Congenital Cataract	Raíra Fortuna Cavaliere Mendes Moraes	Fellow
Correlation between krinsky and hirschberg test with the alternate prism cover test for the deviation measurement in horizontal strabismus	Maria Gabriela Dourado de Melo Gusmão	R3
Assessment of functional vision in children with an without TEA	Karin Grace Vieira Pozza	Fellow
Analysis of blindness and Low Vision causes at "Luiz Braille" Institute Low Vision Outpatient Clinic	Raphael Pellegrino Magdaleno	PIBIC

POSTERS

December 08, 2023 - Thursday

09:35-09:55 AM

POSTER - SESSION 2

Cornea and External Diseases (12), Refractive surgery (2), Cataract (2), Laboratory (2), Trauma (3), Oncology (1), Oculoplastics Surgery (4), Orbit(2), Epidemiology (1), Oculoplastics Surgery (4) and Neuro-Ophthalmology (1)

Scleritis as a manifestation of Acanthamoeba keratitis	Mylena Cristisna de Barsch	PIBIC
Ten years of cornea donation at Hospital São Paulo Eye Bank: profile of donors between 2013 and 2023	Maurício Pessoa Lima Filho	R2
Evaluation of Mitomycin C Intravascular Chemoembolization (MICE) for Corneal Neovascularization	Tulio Ruiz Eschiapati	R2
Accuracy of clinical diagnosis of infectious keratitis among physicians	Carolina Ferreira Huang	R3
Evaluation of the culture positivity of Acanthamoeba in contact lenses, lens cases, lens cases solutions and plungers as potentials sources for Acanthamoeba keratitis investigation	Glauco Sérgio Avelino de Aquino	R3
Seasonal trending of Acanthamoeba keratitis in a reference service	Guilherme Niciunovas	R3
Clinical aspects and quality of life of patients with ocular allergy	João Victor Borges Gomes	R3
Confocal Microscopy and Optical Coherence Tomography Evaluation of Patients with Acute Corneal Hidropsy Submitted to Intrastromal blood Injection or Intracameral C3F8 injection	Klaus Anton Tyrrasch	R4
Cytological and biochemical evaluation of conjunctival secretion during the treatment of Meibomian Gland Dysfunction by JettPlasma.	Chiara Luana Reinert Da Silva	R4
Efficacy and safety of bovine L-hydro pericardium on primary pterygium treatment	Mirella Millena C de Andrade	R4
Clinical outcome and confocal microscopy evaluation in patients with infectious keratitis treated with Rose Bengal Photodynamic Antimicrobial Therapy (RD-PDAT): a Pilot Clinical Study	Aileen Miwa Tabuse	R4
Title: Photorefractive keratectomy associated with simultaneous accelerated crosslinking in patients with keratoconus: evaluation of efficacy and safety in a Brazilian center	Lucas de Oliveira Marques	Fellow
Statistical Analysis of the Effectiveness of the Biometric Formula Used to Calculate the Intraocular Lens in Children with Congenital Cataract between 2019 and 2023.	Rebeca de Aaújo Medeiros	Fellow
Multiple Rotations for Crystalline Nucleus Dissection in Cataract Surgery	Clístenes Stênio L Medeiros	R4
Effects of Electroporation on Acanthamoeba keratitis	Palloma S Prates Pessoa	PIBIC
Teleophthalmology Service Framework	Stefano Neto Jai Hyun	PG1
Evolution of hidden retained intraocular foreign body	Leonardo Ajuz do P Oliveira	R1
Intracameral Moxifloxacin For Prophylaxis Of Open Globe Endophthalmitis - Pilot Study	Pedro Leite Costa Franco	R2
Development of a prime editing strategy to treat mutations in the Crumbs homologue-1 (CRB1) gene	Bruna Lopes da Costa	PG1
VON HIPPEL-LINDAU: can you diagnose this condition on fundoscopy?	Carolina Rodrigues Cunha Guimaraes Drumond	R1
Optic Nerve Pilocytic Astrocytoma: a case report	Matheus F Santos Da Cruz	R1
Analysis of the cases of infectious periorbital and orbital cellulitis admitted at the ophthalmology emergency departament of Federal University of São Paulo	Lucas Henrique Pereira	R2
Outpatient attendance casuistry and theoretical workload of an ophthalmology resident during the training period at the Paulista School of Medicine	Vinicius Oliveira Pesquero	R3
Analysis of eyelid tumors in young individuals in a reference oculoplastic service	Amanda Thum Welter	R2
Blepharoptosis following anti-glaucomatous procedures	Mariana Araujo Dias	R4
Success of canalicular repairs using a hand made johnson`s wire	Leonardo Yuji Arai Inoue	R4
Correlation between Superior Eyelid Elevator Muscle Function, Screen Time, and Ptosis in Young Adults (Aged 20-25)	José Rodolfo Mariani Radaeli	R3
The Relationship of Ganglion Cell Layer and Visual Outcomes in Children with Sellar Tumors	Tais Couto Bernardes P Estrela	PG1
Jett Plasma in the treatment of Dry Eye Disease secondary to Meibomian Gland Disfunction	Vanessa Favero Demeda	PG1

2023 Research Days Abstract Form

<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(GL) GLAUCOMA</p>	<p>1. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Guilherme Barreto de Oliveira Ribeiro PG0</p> <p>e-mail: guilhermebor@gmail.com</p> <p>Advisor: Carolina Gracitelli</p> <p>CEP Number: 57035260</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: The use of a new wireless type IV polysomnography to evaluate the association between obstructive sleep apnea syndrome and glaucoma: a prospective cross-sectional study.</p> <p>Author and Co-authors: Guilherme Barreto de Oliveira Ribeiro Geraldo Lorenzi-Filho Diego Munduruca Domingues Sergio Henrique Teixeira Tiago dos Santos Prata Augusto Paranhos Jr. Carolina Pelegrini Barbosa Gracitelli</p> <p>Purpose: Obstructive sleep apnea syndrome (OSAS) is associated with glaucoma. Polysomnography (PSG) is the gold standard for the diagnosis of OSA. However, PSG has limitations, because it is expensive, presents an inconvenience to patients, and may not be readily available in certain locations. This study aims to evaluate the association between OSAS with objective functional and structural parameters in patients with glaucoma by using a new wireless type IV PSG called Biologix.</p> <p>Methods: This is a prospective, cross-sectional study, in which 39 glaucoma patients were enrolled until now. It included only primary open-angle glaucoma and normal tension glaucoma cases. All patients performed a complete ophthalmological exam. It was used a spectral domain optical coherence tomography (SD-OCT) and spectral domain optical coherence tomography angiography (SD-OCTA) for the measure of retinal nerve fiber layer (RNFL), ganglion cell layer (GCL), and optic nerve head (ONH) morphological and vascular parameters. All patients performed Biologix, which is a wireless type IV PSG that measures O2 saturation, heart rate, actigraphy and records the snoring. All patients also had the OSAS risk questionnaires and NEI-VFQ-25 life quality questionnaire filled.</p> <p>Results: The mean age was 61.92 ± 7.29 years, and 64.10% was female. The mean body mass index was 27.23 ± 4.05. The average mean deviation (MD) of the right and left eyes was -6.35 ± 6.99 dB and -6.84 ± 7.33, respectively. There was a significant association between right and left eyes? peripapillary vessel perfusion density and Pittsburg questionnaire ($p = 0.012$ and $p = 0.025$, respectively). It was also found a significant association between left eyes? MD with the average RNFL and with NEI VFQ-25 questionnaire ($p = 0.008$ and $p = 0.023$, respectively). There was also found a significant association between right eyes? MD and the average RNFL ($p = 0.009$).</p> <p>Conclusion: Our study found an association between average both eyes? MD and RNFL average thickness, and besides between average peripapillary vessel perfusion density and OSAS risk. It was also found an association between right eyes? MD and quality of life. Despite these results, it is necessary a greater number of patients to better evaluate the association between OSAS and structural, functional, and vascular optic disc nerve parameters.</p> <p>Keywords: Glaucoma; Obstructive Sleep Apnea; Polysomnography; OCT;</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Paper</p>	
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2023 Research Days Abstract Form

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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Correlation between Structure, Function and Oxygenation in Glaucoma</p> <p>Author and Co-authors: Gilvan Vilarinho da Silva Filho, Felipe Zocatelli Yamamoto, Olivia Moura de Paula Ricardo, Sergio Henrique Teixeira, Tiago Santos Prata, Carolina Pelegrini Barbosa Gracitelli, Augusto Paranhos Junior</p> <p>Purpose: Perform a correlation between perimetry parameters (Mean Defect-MD), Laguna (Globin Distribution Factor-GDF, Globin Individual Pointer-GIP, Deep Learning-DL and Hb Total) and OCT (nerve fiber layer-RNFL and ganglion cells-GLC).</p> <p>Methods: We included 245 eyes from 142 glaucoma patients. Retinography and OCT were performed using Triton and visual field (CV) using Octopus 600. Retinography images were analyzed using Laguna version 4.0. To analyze the correlation between structural and functional variables, the generalized estimation equation was used.</p> <p>Results: We included 118 male and 127 female patients, with a mean age of 64.56. The MD average was 6.46. The mean DL was 0.352, GDF was -39.163 and Hb Total was 65.98. The mean RNFL was 75.2 and the GCL was 89.46. There was a statistically significant correlation (CES) between the MD and the parameters DL, GDF and GIP in the univariate analysis (AU), but only with the GDF in the multivariate analysis (AM). There was CES between the mean RNFL and the parameters DL, GDF, GIP and Total Hb in UA, and with DL, GDF and Total Hb in AM. CES also occurred between the mean of GCL and the parameters DL, GDF, GIP and Total Hb in the UA, but only with the Total Hb in the AM. There were also CES between the Total Hb of the inferior temporal sector (TI) of the Laguna (271-310°) and the mean of the RNFL and GCL of the IT sector of the OCT.</p> <p>Conclusion: The study showed CES between the functional parameters of the CV and the structural parameters of the OCT and the Laguna. As the OCT is a high-cost exam, the Laguna ONhE may prove to be an alternative software in the evaluation of the diagnosis and progression of glaucoma.</p> <p>Keywords: glaucoma; perfusion; perimetry; oxygenation</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Escotometry guided by standard perimetry using microperimetry in glaucoma patients.</p> <p>Author and Co-authors: GUSTAVO COELHO CAIADO, GUSTAVO ALBRECHT SAMICO, SERGIO HENRIQUE TEIXEIRA, CAROLINA PELEGRINI BARBOSA GRACITELLI, TIAGO DOS SANTOS PRATA, AUGUSTO PARANHOS JR</p> <p>Purpose: Evaluate if a high density perimetry using a MP3 microperimetry in the area of worst sensitivity on Octopus program G gives a better structure and function association with the retinal nerve fiber layer (RNFL) in glaucoma patients.</p> <p>Methods: 59 eyes (59 patients) were included in this study. Perimetry was performed using Octopus 900 G program. The region of interest (ROI) was defined as the worst MS quadrant between 10 to 20 degrees on the G Program (3 or 4 points were included on each quadrant, nasal and temporal respectively). Microperimetry was performed using MP3 and the dot pattern included high-density stimuli: 21 points two-degree spacing 10o from the fovea (from 10o to 14o). RNFL peripapillary thickness of the corresponding quadrant was evaluated using Triton OCT. Eyes were excluded if the MS-OCTOPUS on the worst quadrant was zero. The independent variable was the mean of peripapillary RNFL at the correspondent segment of the ROI and the dependent variables were MS measured by MP3 (MS-MP3) and MS-OCTOPUS. The association between MS and RNFL thickness was evaluated using linear regression analyses. Akaike`s information criterion (AIC) was used to evaluate the model for goodness of fit.</p> <p>Results: 33 women and 26 men were included. The mean age was 67.7 years (+/- 7.3). Mean of MS-MP3 was 20.3dB (+/-10.2) and mean of MS-OCTOPUS was 16.2dB (+/-8.3). Mean of the RNFL thickness of the corresponding quadrant was 95.20 microns (+/-41.1). Both MS were significant associated with RNFL thickness ($p < 0.001$): MP3 $R^2 = 0.579$ (AIC = 323) and MS-Octopus $R^2 = 0.552$ (AIC = 375).</p> <p>Conclusion: MS-MP3 and MS-OCTOPUS were significant associated with RNFL peripapillary thickness in glaucoma patients. The association with MS-MP3 and RNFL was better than MS-OCTOPUS. Adding more points in areas of worst sensitivity could be a toll to perform scotometry as a ROI evaluation approach. KEYWORDS: Glaucoma, Visual field test, Optical coherence tomography.</p> <p>Keywords: Glaucoma; Visual field test; Optical coherence tomography.</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: DETECTING STRUCTURAL PROGRESSION IN GLAUCOMA THROUGH AUTOMATED OPTIC NERVE HEAD HEMOGLOBIN MEASUREMENTS</p> <p>Author and Co-authors: Rocha, JAG, Paranhos Jr. A, Teixeira, SH, Nazareth, TCA, Kanadani, FN, Gracitelli, CPB, Prata, TS.</p> <p>Purpose: To evaluate the performance of automated optic nerve head hemoglobin levels (ONH Hb) measurements for detection of glaucoma structural progression.</p> <p>Methods: Serial color retinographies (CR) and disc photos of treated glaucoma patients with a minimum follow-up of two years were reviewed by two experienced examiners for the presence of definitive anatomical progression. Progression was based on structural changes of the neuroretinal rim and/or retinal nerve fiber layer. In case of disagreement, the participant was not included in the analysis. Patients were then divided into 2 groups: progressors and non-progressors. All CRs were then analyzed by the Laguna ONhE software to estimate ONH Hb, based on colorimetric analyses. Two ONH Hb-derived indices were chosen for analyses: the Glaucoma Discriminant function (GDF, a diagnostic index) and the Globin Individual Pointer (GIP, a progression index). Longitudinal changes in each index (difference between baseline and last visit values) were compared between groups. In addition, sensibility (Se), specificity (Sp) and accuracy for detecting progression were calculated.</p> <p>Results: Sixty-four glaucoma patients included and classified in 29 non-progressors (52 eyes) and 35 progressors (35 eyes). Visual field mean deviation index was -4.25 ± 5.6 in the non-progressor group and -6.9 ± 7.5 in the progressor group ($p=0.08$). The mean GDF change overtime was -3.2 ± 13.8 in the non-progressor group and -8.1 ± 18.4 in the progressor group ($p=0.06$). The mean GIP difference overtime was 1.6 ± 16.9 in the non-progressor group and -12.9 ± 18.63 in the progressor group ($p=0.0003$). The GDF demonstrated a Se of 71%, Sp of 41% and accuracy of 41% in the detecting progression, while the GIP had a Se of 74%, Sp of 58% and accuracy of 64%.</p> <p>Conclusion: Laguna ONhE software, a low-cost and non-invasive method, showed good sensitivity and fair accuracy in detecting structural progression in glaucoma patients. The GIP index demonstrated better performance than the GDF in differentiating progressors from non-progressors.</p> <p>Keywords: Glaucoma, optic nerve head, hemoglobin</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Randomized Clinical Trial: Effects of Melatonin Replacement on Sleep Quality of Patients with Advanced Glaucoma</p> <p>Author and Co-authors: Priscilla Fernandes Nogueira, Monica Levy Andersen, Carolina Pelegrini Barbosa Gracitelli, Augusto Paranhos Jr.</p> <p>Purpose: The present study aims to evaluate whether oral administration of melatonin in patients with sleep disorders and advanced glaucoma would improve the sleep pattern observed through actigraphy and sleep quality questionnaires.</p> <p>Methods: A prospective, randomized, parallel, crossover and double-blind therapeutic-type clinical study will be realized. This study will be performed at the Glaucoma Division and Department of Psychobiology at the Federal University of São Paulo - UNIFESP/EPM and Eye Hospital Visao Laser - Santos/SP. Patients who will be included in this study have the diagnosis of primary open-angle glaucoma in follow-up Glaucoma Division at the Federal University of São Paulo - UNIFESP/EPM, and Eye Hospital Visao Laser The study will take 64 patients, 32 for the melatonin group and 32 for the placebo group. The age range of volunteers will be over 40 years old and under 80 years old. All volunteers will undergo a complete ophthalmologic evaluation (including clinical history, biomicroscopy, visual acuity with best correction, gonioscopy, intraocular pressure measurement using Goldmann applanation tonometry, funduscopy using 78 diopter lens and Humphrey automated perimetry 24-2 SITA-Standardt, and answer a sleep quality questionnaire. Every participant will receive the medication and placebo for a period of 30 days in different times, during which they will all be evaluated with an actigraphy, and sleep quality questionnaire, exam on day 0 and after on day 30, then discontinuing the use of the medication.</p> <p>Results: For this present study, 64 patients were recruited in which the initial exams have already been performed.</p> <p>Conclusion: The hypothesis made in our study would be that the damage caused to ipRGCs in the progression of glaucomatous neuropathy, would reduce the synchronization of light input made by these cells, changing the signal sent to the NSQ and decreasing melatonin secretion, thus leading to sleep disorders. However, previous results of this study group strengthen the hypothesis that somehow these cells act in an important way in synchronizing the sleep-wake cycle. A randomized clinical trial could clarify doubts regarding the sleep aspect of these patients.</p> <p>Keywords: Glaucoma, Melatonin, Sleep Disorders, Circadian Rhythm</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Eyetracker reading patterns in Glaucoma Patients vs. Control Patients Author and Co-authors: Ikeda MC, Nakamura VLP, Bando AH, Hamada KU, Messias AMV, Teixeira SH, Prata TS, Paranhos A, Gracitelli CPB</p> <p>Purpose: To evaluate reading performance patterns (through saccades, fixation and reading speed) in glaucoma patients vs. control group using the eye tracker. In addition, to determine the influence of cognitive level and contrast sensitivity.</p> <p>Methods: This is a prospective case control study. Demographic, systemic and ophthalmologic information was obtained. All patients had at least 0.5 logMAR visual acuity (VA) on the left eye. Cognition was assessed through MoCA (Montreal Cognitive Assessment) and contrast sensitivity through Freiburg Visual Acuity & Contrast Test. Eye Tracker data were extracted using the Tobii Studio appurtenance software. Participants went through a reading performance test on MNRead translated and validated in Portuguese. 3 parameters were evaluated: 1. Reading duration (total time of fixation/characters), 2. Fixation (fixation/characters), 3. Mean fixation duration (total time of fixation/number of fixation)</p> <p>Results: There was a total of 111 patients, 57 glaucoma and 54 control patients. Demographic and ophthalmologic data showed no difference between groups ages, sex and first degree. Control patients read the MNRead charts faster and with less saccades and fixations than glaucoma patients ($p < 0.05$), except for the lower contrast chart.</p> <p>Conclusion: Glaucoma patients can possibly read slower than control patients because they spend more time making saccades and fixating on the texts. This could be because of the visual impairment they have in structural levels at central and peripheral retina. In advanced stages glaucoma, when there is a lower MD and lower BCVA, there's also a decrease in contrast vision, which could explain, to some extent, the improvement of reading speed with higher contrast slides, already shown in previous studies. The lack of correlation in the lower contrast chart could be explained because 47% (27/57) glaucoma patients and 28% (15/54) control patients could not read the MNRead chart. MoCA results are not statistically significant among groups, so reading speed was not influenced by patient's cognition level.</p> <p>Keywords: Glaucoma; eye tracker; eyetracking; cognitive level; contrast; contrast sensitivity; reading; reading speed</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>Fastpaper</p>	
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<p>Deadline: 11/2023</p>	
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(GL) GLAUCOMA

3. THEME: (REQUIRED) Check one:

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Fastpaper

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(BE) OCULAR BIOENGINEERING
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(EF) ELECTROPHYSIOLOGY
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(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

Deadline: 11/2023

FORMAT:

Abstract should contain:

Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

7. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Paula Azevedo Alhadeff PG1

e-mail: paulaalhadeff@uol.com.br

Advisor: Ivan Maynard Tavares

CEP Number: 4507750

5. ABSTRACT (REQUIRED):

Title: The effectiveness of the current clinical paradigm for the diagnosis of glaucoma

Author and Co-authors: PhD Student: Paula Alhadeff, MD Advisor: Ivan Maynard Tavares, MD, PhD

Purpose: To evaluate the effectiveness of the current clinical paradigm for the diagnosis of glaucoma.

Methods: One eye of 70 patients suspected or with open-angle glaucoma and of 50 healthy subjects will be prospectively tested with 24-2 and 10-2 VF, macular and disc OCT cube scans and retinography. In phase 1, three glaucoma specialists and three general ophthalmologists will classify whether each patient has glaucoma based on the retinography. In phase 2, 24-2 VF will be added, and in phase 3, the ophthalmologists will have access to retinography, 24-2 VF and OCT disc scan commercial report. In phase 4, we will include 10-2 VF and OCT macular RGC+ commercial report. These results will be compared to the classifications of a customized one-page report developed by Columbia University. Three individuals trained in analyzing this report will classify the same patients. The report contains features of OCT scans with VF information. Lastly, these two methods will be compared to artificial intelligence to diagnose glaucoma.

Results: We haven't finished yet to collect all the data

Conclusion: We haven't finished yet to collect all the data

Keywords: glaucoma, visual field, oct

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(UV) UVEITIS</p>	<p>8. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Carlos Eduardo de Souza PG1</p> <p>e-mail: souza.carlos@unifesp.br</p> <p>Advisor: Cristina Muccioli</p> <p>CEP Number: 54903421.5.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Triplex (triple fixed combination) Use Evaluation In Patients With Glaucoma: Randomized Clinical Trial</p> <p>Author and Co-authors: Carlos Eduardo de Souza, Monique Viana de Sousa, Lisangela Naomi Morimoto, Cristina Muccioli</p> <p>Purpose: Evaluate the effectiveness of low-dose (2 mg in 0.05 ml) intraocular triamcinolone injection for patients with uveitis-related macular edema</p> <p>Methods: This randomized controlled trial, approved by the ethics committee under the number 54903421.5.0000.5505, are enrolling patient since April 2022 at Uveitis Sector of Ophthalmology Department at Sao Paulo Federal University (UNIFESP). Patients with macular edema secondary to non-infectious uveitis are randomized in 2 groups. Group 1 using intravitreal injection of 0.05 ml of Triamcinolone Acetate (2mg) and group 2 (controlled group) the standard amount of 0.1ml (4mg). A full eye exam on days 0, 1, 7, 30, 60 and 90, which includes a measure of best corrected visual acuity (BCVA), applanation tonometry, slit lamp biomicroscopy, fundus examination, retinography, OCT (optical coherence tomography), and fluorescein angiography, was performed. In addition, the VQF-25 NIE questionnaire was assessed before procedure. The physician that performs the injections are not aware of postoperative evaluations throughout the follow-up. Exclusion Criteria: Patients who underwent intravitreal treatment for macular edema in the last 12 months, or with intraocular pressure greater than 21 mmHg, cup-to-disc ratio greater than 0.5 or family history of glaucoma was not included in the study. Primary outcome is the absolute and percentage change in change in central retinal thickness (CRT) in the study eye from baseline to 3 months. The main secondary outcome measures are: The change in BCVA from baseline to 3 months, relapsing time (time of next recurrency) and adverse events.</p> <p>Results: From April 2022 and September 2023, 42 eye with non infectious macular edema uveitis were enrolled. 32 eyes completed the 3 month-follow-up, 16 eyes of each group. Demographics aspects, baseline features, follow-up and adverse events are under statistical evaluation in this moment.</p> <p>Conclusion: All data is being statistically evaluated, but according to an extensive review of the topic, this is the only prospective study comparing the two doses of this medication. The analysis could yield robust results and thus assist the treatment of patients with uveitic macular edema, which is one of the main causes of low visual acuity.</p> <p>Keywords: Uveitic Edema, Triamcinolone, Intra ocular steroids</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'</p> <p>Paper</p>	
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(UV) UVEITIS</p>	<p>9. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Carmen Luz Pessuti PG1</p> <p>e-mail: luz.pessuti@unifesp.br</p> <p>Advisor: Rubens Belfort Jr.</p> <p>CEP Number: 9416020</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Differential Proteins Expression Distinguished Between Patients With Infectious and Noninfectious Uveitis</p> <p>Author and Co-authors: Carmen L. Pessuti, Quintus G. Medley, Ning Li, Chia-Ling Huang, Joseph Loureiro, Angela Banks, Qin Zhang, Deise F. Costa, Kleber S. Ribeiro, Heloisa Nascimento, Cristina Muccioli, Alessandra G. Commodaro, Qian Huang & Rubens Belfort Jr</p> <p>Purpose: We investigated the aqueous humor proteome and associated plasma proteome in patients with infectious or noninfectious uveitis.</p> <p>Methods: AH and plasma were obtained from 28 patients with infectious uveitis (IU), 29 patients with noninfectious uveitis (NIU) and 35 healthy controls undergoing cataract surgery. The proteins profile was analyzed by SomaScan technology.</p> <p>Results: We found 1844 and 2484 proteins up-regulated and 124 and 161 proteins down-regulated in the AH from IU and NIU groups, respectively. In the plasma, three proteins were up-regulated in NIU patients, and one and five proteins were down-regulated in the IU and NIU patients, respectively. The results of pathway enrichment analysis for both IU and NIU groups were related mostly to inflammatory and regulatory processes.</p> <p>Conclusion: SomaScan was able to detect novel AH and plasma protein biomarkers in IU and NIU patients. Also, the unique proteins found in both AH and plasma suggest a protein signature that could distinguish between infectious and noninfectious uveitis.</p> <p>Keywords: Biomarkers; infectious uveitis; noninfectious uveitis; proteomic platform; SOMAScan</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(UV) UVEITIS</p>	<p>10. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Karine Koller PG1</p> <p>e-mail: karinekkoller@gmail.com</p> <p>Advisor: Cristina Muccioli</p> <p>CEP Number: 01308-030</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: HIGH DOSES OF VITAMIN D IN THE TREATMENT OF AUTOIMMUNE UVEITIS</p> <p>Author and Co-authors: Karine Koller Cícero Galli Coimbra Ricardo Pedro Casaroli-Marano Cristina Muccioli</p> <p>Purpose: To evaluate the safety and efficacy of orally high doses of cholecalciferol associated with conventional treatment for autoimmune uveitis.</p> <p>Methods: A prospective randomized study was carried out to evaluate the tolerability and clinical response efficacy of high doses of oral vitamin D3 (1,000 IU/kg/day) for autoimmune uveitis treatment. A strict low-calcium diet and regular daily fluid intake (2.5 L) were also prescribed. We evaluated 65 patients (70.7% female) diagnosed with autoimmune uveitis with a mean age (\pmSD) of 41.7 ± 11.8 years. The patients were randomized and divided into two groups, with one group (Vitamin D) receiving cholecalciferol and the other receiving a placebo, with up to one year of follow-up.</p> <p>Results: The 25(OH)D values found before the intervention showed 83.1% of patients in both groups with vitamin D3 deficiency. The mean dose of vitamin D3 administered was $73,077 \pm 13,826$ IU per day. The measurement of over 1001 relevant laboratory parameters showed all mean values (\pmSD) within the normal range for total serum calcium (9.7 ± 0.57 mg/dL), ionic calcium (1.21 ± 0.05 mmol/L), serum creatinine (0.84 ± 0.15 mg/dL), serum urea (33.84 ± 9.44 mg/L) and 24 hs urinary calcium secretion (193.50 ± 168.63 mg/24 hs). The placebo group showed more cases of active uveitis at all clinical evaluation visits compared to the vitamin D group ($P' < 0.002$).</p> <p>Conclusion: The administration of vitamin D3, in its inactive form (cholecalciferol), in doses much higher than those commonly used, constituted a safe and effective therapeutic resource for improving ocular inflammation in autoimmune uveitis sufferers. Our data show the safety of using these cholecalciferol doses, associated with safety measures to avoid hypercalcemia, in patients under appropriate medical supervision.</p> <p>Keywords: High-dose cholecalciferol, autoimmune uveitis, Vitamin D, hypercalcemia, Interleukine-17</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Postmortem Ultrastructural Analysis of the Retina from COVID-19 Deceased Patients</p> <p>Author and Co-authors: Paula M. Marinho, Carlla A. Araujo-Silva, Alléxya A. A. Marcos, Ana M. C. Branco, Victoria Sakamoto, Mateus L. Matuoka, Nara F. Moraes, Paulo F. G. M. M. Tierno, Walid M. Mourad, Heloisa Nascimento, Miguel Burnier, Wanderley de Souza & Rubens Belfort Jr</p> <p>Purpose: COVID-19 (coronavirus disease 2019) is an infectious disease caused by SARS-CoV-2, first reported in 2019 in Wuhan, China. Among the common complications is a pro-inflammatory and hypercoagulative response that compromises the vasculature among various organs. This work aims to describe results obtained using light scanning and transmission electron microscopy to examine the retinal tissue of SARS-CoV-2 positive patients who died due to COVID-19.</p> <p>Methods: In this report, we present the postmortem retinal findings of five patients observed by means of optical microscopy and transmission and scanning electron microscopy techniques. The eyes were enucleated within 2 hours of death. The anterior and posterior segments were separated in the ora serrata and then fixed in a freshly prepared solution of 2.5% glutaraldehyde and 4% freshly prepared formaldehyde in 0.1 M cacodylate buffer, pH 7.2 which remained for several days before further processing.</p> <p>Results: Eight eyes from five patients were evaluated, 4 male and 1 female, with ages varying from 51-78 years. Clinical manifestations such as retinal hemorrhages and exacerbated inflammatory infiltrate, altered ultra structure with swollen mitochondria and pyknotic cells in both layers of the retina were observed in all analyzed eyes. In the images obtained by transmission electron microscopy, vessels located in the inner nuclear layer present endothelial cells with mitochondrial distress, with vacuolization that points to vascular distress.</p> <p>Conclusion: Our work shows that the retinal microcirculation suffers severe damage, most likely due to thromboembolic complications in association with COVID-19, as already seen also under non-severe conditions in recent studies with young patients. Our findings of pyknotic nuclei indicate a cell death process. We believe that correlating our findings to available literature emphasizes the importance of surveillance and post-acute phase follow-up and continuous follow-up of patients who had COVID-19 by a multidisciplinary team.</p> <p>Keywords: COVID19, SARS-CoV-2, Retina, Microscopy, Vascular disease</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(TU) TUMORS AND PATHOLOGY</p>	<p>12. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Melina Correia Morales PG1</p> <p>e-mail: melcmorales@hotmail.com</p> <p>Advisor: Norma Allemann</p> <p>CEP Number: 4.017.360</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Ocular Surface Specimen Handling by Ophthalmic Surgeons - Enabling Quality in Pathology Evaluation</p> <p>Author and Co-authors: Melina C Morales, Carolina P. B. Gracitelli, Mariana B B Dias, Arthur G Fernandes, Rubens N Belfort, Moacyr P Rigueiro, Norma Allemann</p> <p>Purpose: To access optimal specimen handling at ocular surface biopsies in order to provide Pathology with adequate tissue presentation. Standard blank filter paper with sutures was compared to Eye Patho filter paper without sutures and also with sutures.</p> <p>Methods: Cross sectional prospective study included 45 eyes of 44 patients with indication for ocular surface biopsy, divided into three groups: control group with routine preparation using white filter paper and sutures (group 1), Eye Patho without sutures (group 2) and Eye Patho with sutures (group 3). The groups were compared considering time spent in specimen handling by the surgeon, preservation status of the specimens received at Pathology and practicality in analyzing topography and margin orientation by the pathologist.</p> <p>Results: There were no statistically significant differences between groups about tumor location, clinical classification, type of biopsy and tumor size ($p > 0.05$ for all comparisons). Group 2 required shorter time in preparing the specimen, followed by group 3 ($p' < 0.05$). However, 40% of specimens in group 2 got separated from the Eye Patho paper by the time it got to macroscopic analysis, those specimens were all nodular and with medium size bigger than average. Group 3 had no specimens loosened from the Eye Patho paper, as in the control group. In the control group, the pathologist had to analyze additional information (diagram/drawing) at all cases, in order to identify location of specimen and margin orientation, while it was required only in 26% in group 2, and not required at all at group 3.</p> <p>Conclusion: Eye Patho optimizes time spent in specimen handling by the surgeon and facilitates interpretation by pathologist compared to standard blank filter paper. When analysis of margins is required, sutures are advisable to fix specimens to paper, especially in nodular tumors.</p> <p>Keywords: Ocular surface biopsy; Specimen Handling; Conjunctival tumors; Ocular Pathology.</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(US) OCULAR ULTRASOUND</p>	<p>13. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Thayze Melo Martins PG1</p> <p>e-mail: thayzemmartins@gmail.com</p> <p>Advisor: Cristina Muccioli</p> <p>CEP Number: 4.507.542</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECION</p>	<p>5. ABSTRACT (REQUIRED): Title: OCULAR GROWTH IN CHILDREN WITH CONGENITAL ZIKA SYNDROME: 7-YEAR FOLLOW-UP</p> <p>Author and Co-authors: Thayze Martins, Antonio Netto, Nathalia Teixeira, Camila Ventura, Mauricio Maia, Cristina Muccioli</p> <p>Purpose: To evaluate the ocular growth of eyes of children with Congenital Zika Syndrome(CZS) measured by ultrasound(US)</p> <p>Methods: Ambidirectional study conducted at the Altino Ventura Foundation,Recife,Brazil,with children with CZS.The subjects underwent two or three ocular US (UltraScan Imaging System, Alcon),over a 7-year period,by the same ophthalmologist to document the ocular axial length (AL) using the trans eyelid B-scan ultrasonography technique.Data was reviewed by a retinal specialist and compared to healthy eyes pattern according to Sampaolesi ocular growth rate (1st and 2nd measurement) and to Rauscher et al.(3rd measurement).Gestational age(GA), head circumference(HC), and weight(Wt) at birth were collected to evaluate the association with AL measurements.The research was approved by the IRB of FAV and Unifesp (4.422.723 and 4.507.542, respectively).</p> <p>Results: Seventy-four eyes of 37 children [19 (51.4%) male] were analyzed. Twenty-five (67.6%) children were born full-term and 12 (32.4%) preterm. Thirty-three (89.2%) children had microcephaly, from which 24 (64.9%) was severe. None of the eyes presented congenital cataract or vitreous abnormalities. Children?s mean age at 1st evaluation was 3.22 months old (mo) [SD = 3.3] (range, 0.2?12.2), 20.17[7.7]mo (range,11.2?34.6) at 2nd evaluation (n = 37), and 92.8 mo [1.4] (range, 90.7-94.3) at the 3rd evaluation (n = 10). The prevalence of ocular growth between the 5th and 50th percentiles was 48/74 eyes (64.9%) at 1st evaluation, 36/74 (48.6%) at 2nd evaluation, and 13/18 (72.2%) at 3rd evaluation. The mean spherical equivalent (SE) of these eyes were 0.3[2.5] diopters (range, -6.00 to +6.00) at the 1st evaluation, -0.2[3.0] diopters (range, -8.00 to +5.00) at the 2nd evaluation, and -2.8[5.8] diopters (range, -12.50 to +2.50) at 3rd evaluation. There was not statistically significant correlation between GA, HC, and Wt with the AL in all 3 evaluations</p> <p>Conclusion: The ocular growth profile of children with CZS is similar to typical children. A myopic pattern was observed in the SE evaluation of these children that was not correlated to the AL. Birth measurements such as GA, CP, and Wt do not seem to present any correlation with the eye growth of children with CZS</p> <p>Keywords: Zika virus; Microcephaly; Congenital anomalies; Ocular development; Ocular abnormalities.</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>Paper</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
<p>Deadline: 11/2023</p>	
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	

2023 Research Days Abstract Form

<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(NO) NEURO-OPTHALMOLOGY</p>	<p>14. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Tais Couto Bernardes P Estrela PG1</p> <p>e-mail: taisestrela@hotmail.com</p> <p>Advisor: Rubens Belfort Jr.</p> <p>CEP Number: 22631010</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: The Relationship of Ganglion Cell Layer and Visual Outcomes in Children with Sellar Tumors</p> <p>Author and Co-authors: Tais Estrela, MD, Ryan Gise, MD</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>Fastpaper</p>	<p>Purpose: Pediatric sellar tumors can compress visual pathways causing irreversible vision loss in children. Although retinal nerve fiber layer (RNFL) has been demonstrated to correlate with visual field loss, there is not enough data on the prognostic value of the ganglion cell layer (GCL) in predicting visual outcomes in children with sellar tumors. In this study, we evaluated the relationship between GCL and visual acuity (VA) in children with sellar tumors treated at Boston Children's Hospital.</p> <p>Methods: This is a retrospective cohort study including 57 patients treated for sellar tumors. VA, visual field, RNFL, and GCL data were extracted. Pearson correlation test and univariable regression were used to investigate the relationship between VA in the worse eye and optical coherence tomography (OCT) parameters.</p> <p>Results: 57 patients (42% female, 58% male) with a median age of 9.0 years (IQR 5.0, 13.0) at diagnosis were included: craniopharyngioma (48), pituitary germinoma (5), and pituitary adenoma (4). At the last follow-up after surgical treatment, 20 patients had visual field deficits. 26 patients had OCT analysis with a median GCL 0.79 mm³ (IQR: 0.49, 1.1), RNFL 61 microns (IQR: 38, 98) and logMAR VA of 0.11 (IQR: -0.06, 0.91) in the worse eye. Both RNFL and GCL were significantly associated with VA (P= 0.037 and P= 0.002, respectively), with a stronger correlation found between VA and GCL than with RNFL (r = -0.60 vs. r = -0.43).</p> <p>Conclusion: Our results indicated that GCL is strongly correlated with VA in patients with sellar tumors and may offer a greater prognostic value than RNFL.</p> <p>Keywords: OCT, Sellar tumors</p>
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
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2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

**(US) OCULAR
ULTRASOUND**

3. THEME: (REQUIRED) Check one:

IMAGING

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Paper

Scientific Section Descriptions (two-letter code):

(BE) OCULAR BIOENGINEERING
(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

Deadline: 11/2023

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Abstract should contain:

Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

15. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Mariana Borges Barcellos Dias PGO

e-mail: marianabbd@gmail.com

Advisor: Norma Allemann

CEP Number: 64938922.6.0000.5505

5. ABSTRACT (REQUIRED):

Title: Ultrasound biomicroscopy (UBM) findings in pigmented nevi of the iris and ciliary body

Author and Co-authors: DIAS MBB, MORALES MC, ALLEMANN N

Purpose: To analyze the ultrasonographic characteristics of iris and ciliary body pigmented nevi and evaluate the possible early changes in these lesions that may suggest malignant transformation with UBM.

Methods: Medical records and images of ultrasound biomicroscopy (UBM) exams of iris and ciliary body nevi at UNIFESP from the last 10 years were analyzed. Patient data was reviewed retrospectively for clinical features and ultrasonographic characteristics.

Results: 63 patients were included, 41 women and 22 men. All patients were diagnosed with iris nevi and 12% (8 eyes) had concomitant ciliary body involvement, 58% (37 eyes) in the right eye and 63% (40 eyes) were localized in the inferior quadrants. The most common ultrasonographic patterns was homogenous architecture with high or medium reflectivity (33% and 57% respectively). Thickness ranged from 0.13 mm to 2.55 mm.

Conclusion: To describe the most common ultrasonographic characteristics of iridociliary nevi are important for the differentiation between benign and malignant lesions for both diagnosis and follow up.

Keywords: Ultrasound biomicroscopy; Iris Nevus, Ciliary Nevus.

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(LV) LOW VISION</p>	<p>16. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Paula Baptista Eliseo da Silva PG1</p> <p>e-mail: paula.baptista@unifesp.br</p> <p>Advisor: Adriana Berezovsky</p> <p>CEP Number: 5.724.537</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Visual rehabilitation through assistive technology adaptation in low vision</p> <p>Author and Co-authors: Paula Baptista Eliseo da Silva, Nívea Nunes Ferraz, Marcela Cypel, Adriana Berezovsky</p> <p>Purpose: To evaluate visual rehabilitation through the adaptation of assistive technology devices (AT) in low vision subjects.</p> <p>Methods: Patients referred for visual rehabilitation were included following these inclusion criteria: best-corrected visual acuity (BCVA) in the better-seeing eye for distance from 0.5 to 1.3 logMAR and concluded adaptation of AT. All subjects were assessed at the Outpatient Low Vision Service between February and August 2023. The World Health Organization 20-item Visual Functioning Questionnaire (WHO VFQ-20) was applied to measure vision-related quality of life before visual rehabilitation. WHO VFQ-20 questions were grouped into 2 main domains: visual functioning (VF: overall vision, distance vision, near vision, and sensory adaptation) and quality of life (QoL: pain, social activities, and mental health). The domains and global scores were calculated by the arithmetic mean of the related questions scores. The visual rehabilitation program was tailored according to individual necessities, and the outcomes of AT adaptation were assessed by comparing visual acuity (VA) with and without the prescribed device. Statistical significance was considered at p equal to or less than .05.</p> <p>Results: Eleven participants were recruited (median age 68 years, 8 females). Near reading was reported by all participants as the purpose of low vision rehabilitation. The mean WHO VFQ-20 global score was 36.0 (SD 17.0), with VF and QoL domains scores of 37.2 (SD 19.7) and 33.8 (SD 17.7), respectively. The mean near BCVA without AT was 0.80 (SD 0.20) logMAR and the prescribed AT were as follows: spectacle magnifier (5), hand-held magnifier (4), filtering lenses (4), table magnifier (1) and digital magnifier (1). The mean prescribed magnification was 7.6 (SD 3.4) diopters and the near VA achieved with AT 0.35 (SD 0.11) logMAR, with an improvement of 4.4 (SD 2.2) lines in the logMAR chart. Statistically better VA with AT was found (p less than .01).</p> <p>Conclusion: Visual rehabilitation has shown substantial visual efficiency improvement and may impact positively on vision-related quality of life. The WHO VFQ-20 will be followed after 6 months of AT prescription to corroborate the low vision rehabilitation outcome in this population's daily life.</p> <p>Keywords: quality of life, low vision, rehabilitation</p>
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<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(EP) EPIDEMIOLOGY</p>	<p>17. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Pedro Antonio Nogueira Filho PG0</p> <p>e-mail: pedro.nogueira@unifesp.br</p> <p>Advisor: Mauro Campos</p> <p>CEP Number: 4522720 / 4477554</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: "Epidemiological statistical analysis comparing public and private care, in the Ophthalmology Emergency Room in the city of São Paulo, involving Hospital São Paulo x H.Olhos"</p> <p>Author and Co-authors: Pedro Antonio Nogueira Filho Licia Cristina Vago Matieli Maidana Caio Vinicius Saito Regatieri Mauro Silveira de Queiroz Campos</p> <p>Purpose: To highlight the work of the Ophthalmological Emergency Room through comparative epidemiological statistical analysis between public and private care, in the city of São Paulo, involving Hospital São Paulo x H. Olhos Paulista.</p> <p>Methods: The data must be analyzed statistically, in a descriptive way, through comparative analysis, evidenced from a survey carried out initially by the Information Technology of the two different centers and later compiled, with no identification of any patient and valuing the security of the information collected and obeying the safety standards of each system and respective centers. The public epidemiological statistical analysis will have sampling from electronic medical records from digitalized physical records, referring to the São Paulo hospital storage system, with a number of patients proportional to a demonstrative sampling compatible with the number of ~ 500,000 visits accumulated on the private platform of Hospital de Olhos Paulista between 2011 and 2019. An epidemiological statistical analysis will be used, based on data stored in the electronic medical record, in a comparative way between a specialized public and a private medical service, relating information such as gender, age, visual acuity, diagnosis, ICD-10 (International Statistical Classification of Diseases and Health Related Problems) and place of origin of the patient. The work will consequently be structured and presented from a descriptive study referring to the findings analyzed from this sample.</p> <p>Results: The data is still being compiled, due to the amount of information, and will then be compared and superimposed between the two previously mentioned institutions. In progress.</p> <p>Conclusion: It is understood that there is a need for a comparative assessment between the private and public service in order to allow the identification of any differences between these groups regarding the incidence of eye diseases and the need for evaluation in the Emergency Room.</p> <p>Keywords: Ophthalmology, Emergency Room, Epidemiological Profile, Statistical Analysis, Public Service, Private Service;</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(ST) STRABISMUS</p>	<p>18. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Cristiana Ronconi Lopes PG1</p> <p>e-mail: cristianaronconi@gmail.com</p> <p>Advisor: Paulo Schor</p> <p>CEP Number: 54089421.2.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED):</p> <p>Title: Real World Evidence of the Use of Cloudscaper Optotypes versus LEA Symbols for Virtual/Digital Visual Acuity Measurement in Children 3 to 16 Years Old</p> <p>Author and Co-authors: Cristiana Ronconi Lopes, Julia Dutra Rossetto, Luisa Moreira Hopker, , Ana Carolina Carneiro, Barbara Ventorin, James O'Neill, Paulo Schor</p> <p>Purpose: The present study aims to compare best-corrected visual acuity(VA) results obtained using Cloudscaper symbols (CS), a new optotype developed by Eyespy 20/20, with results obtained with LEA Symbols chart in children from three to 16 years-old</p> <p>Methods: A cross-sectional study was carried out, to compare virtual VA measurements with a new modality of symbols optotypes, CS, to the existing and validated symbols chart, LEA Symbols.560 children were examined in a task force action model. Paired t-tests were performed to assess the presence of any clinical significance in the measured logMAR visual acuity between CS and LEA symbols</p> <p>Results: Mean age of 8.8 yo (SD 3.0). The absolute mean VA difference between CS and LEA, in LogMAR values, was 0.099 (SD 0.082, $p' < '0.0001$). VAs measured by both methods are highly correlated with a Spearman correlation coefficient of 0.74, $p' < '0.0001$. This correlation is significant across all visual acuity groups and age groups.</p> <p>Conclusion: Results of the present study suggest that CS are equivalent to the LEA symbols chart, it is reliable to screen children from 3 to 16 years old, and the virtual VA measurements on Eye Spy 20/20 application were shown to be an adequate tool to perform visual screening in children</p> <p>Keywords: Visual Acuity, Visual screening, virtual visual exam, children</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Fastpaper</p>	
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(LV) LOW VISION</p>	<p>19. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Ana Carolina Carneiro PGO e-mail: carneiro.acsb@gmail.com Advisor: Mauro Campos CEP Number: 39149720.9.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Preliminary study of the children's functional vision assessment (CFVA) protocol for children with visual disability adapted for remote consultation.</p> <p>Author and Co-authors: Ana Carolina Sarmiento Barros Carneiro Arthur Gustavo Fernandes Bruno Avelar Miranda Marcia Caires B. Lopes Marcela Aparecida dos Santos Celia Regina Nakanami Mauro Silveira de Queiroz Campos</p> <p>Purpose: To compare responses obtained through the CFVA for children with visual disability protocol carried out in face-to-face and remote consultation (telemedicine).</p> <p>Methods: The children included in the study had their functional vision assessed across the 12 CFVA protocol procedures during face to face appointment (gold standard) and therefore evaluated in two other assessments during teleconsultations carried out by two different masked professionals at an interval of up to 60 days. The instruments used in all evaluation were checkered racket, face racket, checkered cylinder and striped strip. The frequencies of responses in the different types of visits were evaluated using Fisher's Exact Test and the individual responses were compared by agreement analysis.</p> <p>Results: Nine patients were evaluated, the age average was 49.55 +- 34.55 months and 77.8% of them were male. The distribution of responses for each procedure analyzed did not show any statistical difference between the three assessments (p>0.05). When comparing the two teleconsultations carried out, agreement ranged from 33.33% (confrontation field and optokinetic nystagmus) to 100% (fixation, contact with the face and increase in global movement). When comparing the responses found between face to face and teleconsultation assessments, agreement ranged from 44.44% (confrontation field and optokinetic nystagmus) to 100% (fixation, contact with the face and increased global movement).</p> <p>Conclusion: The frequency of responses was the same in all of the procedures evaluated and agreement between face to face and teleconsultation was greater in fixation, visual contact with the face and increased movement upon stimuli presentation, however, was lower in confrontation field and optokinetic nystagmus procedures. A functional vision assessment during teleconsultations, using standardized stimuli, is possible but a specific protocol must be considered using reliable parameters that can be considered in video assessments.</p> <p>Keywords: functional vision assessment, telemedicine, children, visual disability</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Fastpaper</p>	
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>20. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Marina Roizenblatt Post-doc</p> <p>e-mail: maroizenb@gmail.com</p> <p>Advisor: Mauricio Maia</p> <p>CEP Number: 1457030</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: A POLYSOMNOGRAPHIC STUDY OF EFFECTS OF SLEEP DEPRIVATION ON NOVICE AND SENIOR SURGEONS DURING SIMULATED VITREORETINAL SURGERY</p> <p>Author and Co-authors: Marina Roizenblatt, Peter L. Gehlbach, Vitor D. G. Marin, Arnaldo Roizenblatt, Vinicius S. Saraiva, Mauricio H. Nakanami, Luciana C. Noia, Sung E. Song Watanabe, Erika S. Yasaki, Renato M. Passos, Octaviano Magalhães Junior, Rodrigo A. B. Fernandes, Franc</p> <p>Purpose: To assess the impact of a 3-hour polysomnography (PSG)-recorded night of sleep deprivation on next-morning simulated microsurgical skills among vitreoretinal surgeons with different levels of surgical experience, and to associate the sleep parameters obtained by PSG with the Eyesi-generated performance.</p> <p>Methods: In this self-controlled cohort study, 11 junior vitreoretinal surgery fellows with less than 2 years? surgical experience and 11 senior surgeons with more than 10 years? surgical practice. Surgical performance was assessed at 7 a.m. after a 3-hour sleep-deprived night using the Eyesi simulator and compared to each subject?s baseline performance. Main outcomes were changes in the Eyesi-generated score (0-700, worst-best), time for task completion (minutes), tremor-specific score (0-100, worst-best), and out-of-tolerance tremor percentage. PSG was recorded during sleep deprivation.</p> <p>Results: Novice surgeons had worse simulated surgical performance after sleep deprivation compared to self-controlled baseline dexterity in the total score (559.1 ± 39.3 vs. 593.8 ± 31.7, p=0.041), time for task completion (13.59 ± 3.87 minutes vs. 10.96 ± 1.95 minutes, p=0.027), tremor-specific score (53.8 ± 19.7 vs. 70.0 ± 15.3, p=0.031), and out-of-tolerance tremor (37.7% ± 11.9% vs. 28.0% ± 9.2%, p=0.031), while no performance differences were detected in those parameters among the senior surgeons before and after sleep deprivation (p>0.05). The time for task completion increased by 26% (p=0.048) in the post-sleep deprivation simulation sessions for all participants with a high apnea-hypopnea index (AHI) and by 37% (p=0.008) among surgeons with fragmented sleep compared with those with normal AHI and fewer than 10 arousals/hour, respectively. Fragmented sleep was the only polysomnographic parameter associated with a worse Eyesi-generated score with a 10% (p=0.005) decrease the following morning.</p> <p>Conclusion: This study detected impaired simulated surgical dexterity among novice surgeons after acute sleep deprivation, while senior surgeons maintained their surgical performance, suggesting that the impact of poor sleep quality on surgical skills is offset by increased experience. When considering the two study groups together, sleep fragmentation and AHI were associated with jeopardized surgical performance after sleep deprivation.</p> <p>Keywords: Polysomnography, sleep deprivation, surgical performance, surgical simulator, and vitreoretinal surgery.</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>Paper</p>	
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(RE) RETINA AND VITREOUS

3. THEME: (REQUIRED) Check one:

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Paper

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(BE) OCULAR BIOENGINEERING
(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
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Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

21. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Marcussi Palata Rezende PG0

e-mail: marcussipr@hotmail.com

Advisor: Rubens Belfort Jr.

CEP Number: 3.585.290

5. ABSTRACT (REQUIRED):

Title: BIOMARKERS ANALYSIS OF OCT ANGIOGRAPHY AND OPTICAL COHERENCE TOMOGRAPHY EXAMS IN PATIENTS WITH MACULAR EDEMA TREATED WITH ANTI VEGF

Author and Co-authors: Marcussi Palata Rezende, Thiago Cabral and Rubens Belfort Jr

Purpose: To determine and correlate pre-treatment and post-treatment variations in central and choroidal macular thickness, capillary density and neovascular membrane area in patients with exudative age-related macular degeneration using Optical Coherence Tomography Swept Source OCT- SS and OCT-angiography OCTA - SS in patients undergoing treatment-naïve intravitreal injection of aflibercept within a minimum period of three months. And assess patients for sex, age, disease duration, change in intraocular pressure and check for change in corrected visual acuity.

Methods: A prospective observational study of a series of cases evaluated in medical records analysis and OCT Swept Source performances will be carried out. Inclusion criteria:

a) patients with age-related macular degeneration, exudative, treatment-naïve, who will undergo at least three intravitreal injections.
b) complete medical record with research data: sex, age, disease duration, medications in use, pre and postoperative intraocular pressure, corrected visual acuity before and after the procedure, OCT-SS and OCTA-SS; who had never received previous treatment with intravitreal injection of anti-VEGF.

Results: In progress

Conclusion: In progress

Keywords: Neovascular Age Related Macular Degeneration; Anti VEGF; Aflibercept; Macular thickness; Choroidal thickness; Capillary density; Area of the neovascular membrane; OCT Swept Source

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>22. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Alex Treiger Grupenmacher PG1</p> <p>e-mail: alexgrups@gmail.com</p> <p>Advisor: Caio Regatieri</p> <p>CEP Number: 990022081</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>ANGIOGENESIS</p>	<p>5. ABSTRACT (REQUIRED): Title: A longitudinal analysis of the efficacy and security of a new antiangiogenic drug derived from chemically modified heparin mimetics (MHep), both isolated and combined with anti-VEGF</p> <p>Author and Co-authors: Alex Treiger Grupenmacher M.D, Bianca O. Augusto, Bruna Zancanelli Fetter, Vinicius Kniggendorf M.D, Diego Lisboa Araujo M.D, Juliana L. Dreyfuss, Pharm D. Advisor: Ph.D, Caio V. S. Regatieri M.D, P PhD</p> <p>Purpose: To synthesize and evaluate a chemically modified (MHep) with and without bevacizumab, both in vitro and in vivo with regards to its safety and efficacy, isolated and combined with anti-VEGF.</p> <p>Methods: In vitro assays used Rabbit Aortic Endothelial Cells (RAEC) and RPE cells (ARPE-19) to investigate cell viability, proliferation, and migration tests, comparing MHep, Bevacizumab, and combined MHep-Bevacizumab. In vivo tests were undertaken in rats, with a choroidal neovascularizaepM-Bevacizumabtion model and the injection of progressively concentrated MHep, and combined MHep and Bevacizumab.</p> <p>Results: In vitro studies showed that the treatment of RAEC and RPE cells with MHep, Bevacizumab, and MHep-Bevacizumab didn't show cytotoxicity at any concentration tested. Furthermore, the treatment with MHep and MHep-Bevacizumab promoted a significant reduction in the proliferation of the RAEC cells without impairing ARPE-19 activity. It also observed a significant reduction in the migration of RAEC treated with MHep and MHep-Bevacizumab. In vivo studies showed a significant reduction in the MHep and MHep-Bevacizumab choroidal neovascularization (CNV) areas when compared to the control. The dose-dependent effect was not observed in all groups.</p> <p>Conclusion: mHEP both isolated and combined with Bevacizumab showed a safe profile in vitro testing and efficacy both in vitro and in vivo. New pathways to address angiogenesis in retinal diseases are a clinical burden and the MHep may pose as proof of concept that ocular neovascular diseases must be approached more comprehensively</p> <p>Keywords: angiogenesis, anti-angiogenesis, anti-VEGF, heparin, modified heparin</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>Paper</p>	
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>23. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Anelise Savaris Dias PG1</p> <p>e-mail: anelise_sd@hotmail.com</p> <p>Advisor: Miguel Burnier Jr.</p> <p>CEP Number: 5.612.895</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Diagnosis and histopathological evaluation of soft drusen in patients that underwent evisceration and enucleation</p> <p>Author and Co-authors: Anelise Savaris Dias (1,2), Julia Valdemarin Burnier (1), Sabrina Bergeron (1), Emma Youhnovska (1), Emily Marcotte (1), Rubens N. Belfort (2), Miguel Noel Burnier Jr.(1,2) (1) Department(s) and institution(s): Department of Ocular Pathology and Translati</p> <p>Purpose: Drusen are yellow deposits between the basal lamina of the retinal pigment epithelium (RPE) and the inner collagenous layer of Bruch?s membrane. Soft drusen, generally characterized by a medium to large size and poorly demarcated boundaries, increases the risk for advanced age-related macular degeneration (AMD). The prevalence of soft drusen in histopathological sections of the macular region, obtained from enucleated and eviscerated eyes, will be correlated in this study.</p> <p>Methods: This is a prospective, cross-sectional study performed at the MUHC-McGill University Ocular Pathology & Translational Research Laboratory (McGill University, Montreal, Canada). A total of 158 eyes were evaluated between 2011-2019. Of these, 50% were enucleated and 50% eviscerated eyes. Cases were divided by age in decades into both groups, eviscerated and enucleated eyes. Inclusion criteria were patients aged 50 years or older, identification by histological criteria of macular area, histopathologically preserved macular area, presence of sufficient residual tissue for additional sections, concrete patient data. Histopathological review was performed in digitized H&E slides (Zeiss AxioScan.Z1) to assess the presence of soft drusen.</p> <p>Results: The results in both groups, enucleated and eviscerated eyes were similar, as well as the histopathological criteria used in the analysis of soft drusen.</p> <p>Conclusion: Prevalence of age-related macular degeneration in the referred population was comparable to that described in both studied groups. Financial support for this study was assumed by the responsible researcher.</p> <p>Keywords: Soft Drusen, age-related macular degeneration, evisceration, enucleation.</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>24. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Bruna Ferraco Marinelli PG1</p> <p>e-mail: brunaf_mari@hotmail.com</p> <p>Advisor: Juliana Sallum</p> <p>CEP Number: 54042316.7.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>CELL THERAPY</p>	<p>5. ABSTRACT (REQUIRED): Title: Ocular and Neurological Findings in a cohort of Brazilian patients with Spinocerebellar Ataxias</p> <p>Author and Co-authors: Bruna Ferraço Marianelli, Flávio Moura Rezende Filho, Mariana Vallim Salles, José Luiz Pedroso, Orlando G. Barsottini, Juliana Maria Ferraz Sallum.</p> <p>Purpose: The main goal was to describe the ocular findings of Brazilian patients with spinocerebellar ataxias (SCAs) variants. The secondary objective was to review the literature regarding the genetics, molecular mechanisms and clinical aspects of the retinal degeneration in SCA7.</p> <p>Methods: We enrolled 73 patients with clinically established and molecularly confirmed SCAs (11 were SCA2, 42 were SCA3 and 20 were SCA7 patients), evaluated from 2013 up to 2017. Literature review on retinal degeneration in SCA7 was made.</p> <p>Results: SCA7 is an autosomal dominant neurodegenerative disorder resulting from CAG trinucleotide expansions in the ATXN7 gene, which codifies a protein (ataxin-7) rich in polyglutamine residues, that accumulates and causes cell death in retina, brain and cerebellum. The length of CAG repeats is inversely correlated with the age of onset and the disease duration and severity. Ataxin-7 is a core component of SAGA complexes, involved in chromatin remodeling. The mutant ataxin-7 misfolds and accumulates progressively in the intracellular compartment, forming aggregates observed as nuclear inclusions by immunohistochemistry. In animal models, ataxin-7 possibly interacts with CRX, a nuclear transcription factor predominantly expressed in photoreceptor cells as promoter of many genes. Mutations in CRX gene are associated with cone-rod dystrophy. Other disturbances in transcriptional pathways involved in the maintenance of mature photoreceptors that may contribute to SCA7-R include down-regulation of NRL (neural retina leucine zipper protein) and Nr2E3 (Nuclear Receptor Subfamily 2, Group E, Member 3) and re-activation of OPTX2, STAT3 and HES5. The ultimate result is the progressive regression of retina photoreceptors, which lose outer segments and cell polarity, transforming from mature to undifferentiated state. Clinically, patients with SCA7 manifest cerebellar ataxia associated with progressive visual loss. Fundus exam shows a cone-rod dystrophy phenotype</p> <p>Conclusion: SCAs are a heterogeneous group of autosomal dominant inherited neurodegenerative diseases. The ocular phenotype varies among the different subtypes of the disease. SCA7 comprises a degenerative retinopathy characterized by a cone-rod dystrophy phenotype.</p> <p>Keywords: spinocerebellar ataxias, retinal degeneration, optical coherence tomography</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: The rehabilitation scenario for people with retinal disease in Brazil: An exploratory study</p> <p>Author and Co-authors: CECÍLIA F C VASCONCELLOS MARINA L BRANDÃO JULIANA M F SALLUM</p> <p>Purpose: Individuals with retinal diseases exhibit high rates of depression and anxiety, as well as a low quality of life. To improve quality of life, the rehabilitation process is recommended. It is an interdisciplinary and multiprofessional process aimed at readapting individuals to their disabilities. The objective of this study is to investigate the current scenario of rehabilitation services for people with retinal diseases in Brazil.</p> <p>Methods: An exploratory study was conducted using a Google Forms questionnaire distributed by patient associations, between March and July 2023. All participants read and agreed to the consent form. All analyses were performed using the statistical software R, ranging from marginal descriptive analysis to the Fisher Exact Test, at a p-value '<' 0.05.</p> <p>Results: There were 141 participants aged 18 to 70, with the 35 to 55 age range being the most prevalent (40.1%). One hundred and seven (75.9%) had rare diseases, while 34 (24.1%) had more prevalent diseases. The time since diagnosis varied from 1 year to over 10 years. Forty-eight individuals (33.8%) underwent rehabilitation, while 94 (66.2%) did not. The main reason for not undergoing rehabilitation was a lack of knowledge about this service, cited by 41 (43.6%). Twenty (41.7%) of the referrals were made by healthcare professionals. The most common rehabilitation processes were orientation and mobility, 35 (72.9%), psychological support, 26 (54.2%), and training for assistive technology, 24 (50%). Most individuals had a rehabilitation center in their city, 15 (38.5%). Rehabilitation improved the quality of life for 38 (80.9%) participants, and 28 (62.2%) were satisfied with the process. Notably, a statistically significant disparity emerged between satisfaction levels with the rehabilitation process and the locale of its implementation, 23 (69.7%) participants who underwent rehabilitation within dedicated rehabilitation centers reported satisfaction.</p> <p>Conclusion: The rehabilitation process has a direct impact on the quality of life of individuals with retinal diseases, and therefore, all patients should undergo this process. Healthcare teams can make more referrals to rehabilitation centers, and public policies should be created to raise awareness and inform the population about the availability of rehabilitation services.</p> <p>Keywords: Rehabilitation, Quality of Life, Retinal Diseases</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: STRUCTURAL AND VASCULAR ASSESSMENT OF THE OPTIC DISC IN CHRONIC CHAGAS DISEASE</p> <p>Author and Co-authors: Cristiana Agra¹, Camila V. Ventura², Marcela Oliveira³, Leticia da Fonte³, Marília Leal³, Tiago S. Prata⁴. 1. DINTER?FAV/UNIFESP, Department of Ophthalmology, Altino Ventura Foundation, Recife, PE, Brazil and Department of Ophthalmology and Visual Science</p> <p>Purpose: To investigate structural and vascular optic nerve head (ONH) parameters obtained from optical coherence tomography angiography (OCTA) and Laguna ONhE software in patients with chronic Chagas disease (CD).</p> <p>Methods: We report the results of this cross-sectional ongoing study that included patients with chronic CD and healthy subjects as controls. All participants underwent a complete ophthalmological examination, including retinography (CR2, Canon Inc., New York, USA) and OCTA (RTVue XR Avanti, Optovue, Fremont, California, USA). Color fundus retinography were analyzed by Laguna ONhE software to measure the amount of ONH haemoglobin. The main outcome measures were peripapillary vascular density (PVD), retinal nerve fiber layer (RNFL) thickness, ganglion cell complex (GCC) thickness and glaucoma discriminant function (GDF).</p> <p>Results: A total of 12 patients with chronic CD (mean age: 61.0, standard deviation: range 11.6 years) and 12 healthy controls (mean age: 59.6, standard deviation: 8.5 years) were included. Out of the chronic CD group, 6 patients had cardiac CD form without ventricular dysfunction, 3 had ventricular failure, and 3 had the indeterminate form. No significant difference was observed between groups regarding PVD (p 0.505), RNFL (p 0.602), GCC thicknesses (p 0.916) and GDF (p 0.803).</p> <p>Conclusion: Results suggest that patients with chronic CD may have similar structural and vascular peripapillary parameters when compared to healthy individuals. A larger sample is warranted to confirm these initial results.</p> <p>Keywords: Chagas disease; Optic nerve; Glaucoma; Optical coherence tomography angiography.</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>27. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Daniel Prado Beraldo PG1</p> <p>e-mail: danielpberaldo@hotmail.com</p> <p>Advisor: Rubens Belfort Jr.</p> <p>CEP Number: 19386619.1.0000.8247</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>ANGIOGENESIS</p>	<p>5. ABSTRACT (REQUIRED): Title: Correlations Among Subfoveal Choroidal Thickness, Macular Thickness, and Visual Outcome in Neovascular Age-related Macular Degeneration Using Swept Source OCT: Insights from Intravitreal Aflibercept Treatment</p> <p>Author and Co-authors: Daniel P. Beraldo, Marcussi P. Rezende, João Gabriel Alexander, Rubens Belfort Jr, Thiago Cabral, Rodrigo Brant, Arthur Fernandes</p> <p>Purpose: Age-related macular degeneration (AMD) is a leading cause of visual impairment among individuals aged 50 and above, often resulting in irreversible vision loss. The objective of this study was to evaluate visual acuity and correlate pre-treatment variables, such as foveal thickness and choroidal thickness, with post-treatment outcomes antiangiogenic therapy.</p> <p>Methods: This study was designed as a prospective interventional study to investigate the changes in choroidal and macular thickness in patients with neovascular AMD who received intravitreal aflibercept injections. The data was collected during a three-month load dose period.</p> <p>Results: The best-corrected mean visual acuity significantly improved from 1.0 logarithm of the minimum resolution angle (logMAR) units to 0.55 logMAR after treatment with aflibercept ($p < 0.001$). Patients undergoing treatment exhibited a significant decrease in average macular thickness from 323 μm to 232 μm ($p = 0.001$), as well as a reduction in choroidal thickness from 206 μm to 172 μm ($p = 0.031$). Furthermore, there was an improvement in corrected visual acuity ($p < 0.001$) while maintaining intraocular pressure within the normal range ($p = 0.719$) without significant variation. Statistically significant associations were found between the difference in pre- and post-treatment choroidal thickness and the pretreatment values of macular thickness ($p = 0.005$) and choroidal thickness ($p = 0.013$). There was also a statistically significant correlation between the difference in pre and post-treatment macular thickness and the pretreatment macular thickness value ($p < 0.001$).</p> <p>Conclusion: In this study, aflibercept exhibited remarkable effectiveness in reducing macular and choroidal thickness, as evaluated using OCT-SS, and significantly improved visual acuity in patients with neovascular AMD. The assessment of both choroidal and macular changes, as well as their correlations, can provide valuable insights for clinicians, enabling them to make well-informed therapeutic decisions and effectively monitor treatment outcomes.</p> <p>Keywords: Age-related Macular Degeneration; Neovascular; Aflibercept; Macular thickness; Choroidal thickness; OCT Swept Source.</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'</p> <p>Fastpaper</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: OUTCOMES OF INTRAOCULAR LENS EXCHANGE WITH COMBINED PARS PLANA VITRECTOMY AND RETROPUPILLARY IRIS-CLAW INTRAOCULAR LENS FIXATION</p> <p>Author and Co-authors: Denise Pardini Marinho, MD, Olívia Pereira Kiappe, MD, Thalita Virginia Fernandes de Oliveira, MD, Jorge Henrique, MD, André Maia, MD, PhD, and Maurício Maia, MD, PhD</p> <p>Purpose: To determine surgical and refractive outcomes of intraocular lens (IOL) exchange with a combined pars plana vitrectomy (PPV) and retropupillary iris claw intraocular lens (ICIOL) fixation.</p> <p>Methods: We retrospectively analyzed 33 eyes treated with PPV and secondary implantation of retropupillary ICIOL. Primary outcomes included best corrected visual acuity (BCVA), surgical time, complication rates/types, and refraction.</p> <p>Results: Data from 33 eyes of 32 patients were analyzed. The mean visual acuity improved from LogMAR 0,73 ± 0,55 preoperatively (pinhole VA) to 0,18 ± 0,24 (BCVA), approximately 6 months postoperatively (P '<' 0.0001). Final spherical equivalent was -0.40 ± 0.97 diopters (D). Final astigmatism was -1,28 ± 1,37 D. The mean induced astigmatism was 1,39 ± 0,93 D, and the mean pre and post operative pachymetry were 562u and 558u, respectively. Mean surgical time was 25 minutes. Postoperative complications were 4 (12%) patients with hyphema, 2 (6%) with cystoid macular edema, 2 (6%) with post-operative hypertension and 1 (3%) with hypotony, choroidal detachment and hypotonic maculopathy. Two (6%) patients required new surgical intervention, one for IOL repositioning after IOL dislocation due to ocular trauma and IOL exchange due to IOL dislocation.</p> <p>Conclusion: IOL exchange with combined PPV and retropupillary ICIOL fixation is a timesaving procedure, with favorable visual and refractive outcomes and few intraoperative and postoperative complications.</p> <p>Keywords: retropupillary iris claw, aphakia, IOL exchange, pars plana vitrectomy, secondary intraocular lens.</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: POSTURAL ALIGNMENT IN CHILDREN WITH CONGENITAL ZIKA SYNDROME-RELATED VISUAL IMPAIRMENT</p> <p>Author and Co-authors: Raine Borba¹, Amanda Rodrigues¹, Claudia Marques¹, Lucelia Nobrega¹, Camila Ventura^{1,2}, Juliana Sallum³, Liana Ventura^{1,2} ¹ Altino Ventura Foundation ² HOPE Eye Hospital ³ Universidade Federal de Sao Paulo</p> <p>Purpose: Considering the multiple disabilities that children with Congenital Zika Syndrome (CZS) present, it is reasonable to assume they are at significant risk of developing specific postural changes that compromise their overall development. Therefore, this study aims to evaluate the postural alignment in children with CZS-related visual and neurological impairment.</p> <p>Methods: This is a quantitative, cross-sectional, exploratory study of children with CZS. Visual assessment, including binocular best corrected visual acuity using TAC II and ocular alignment, was performed by pediatric ophthalmologists. For posture alignment assessment, digital photographs were captured and analyzed using the PhysioCode Posture app, which performs measurement and angular observation of the following variables: head, shoulder, elbows, wrists, hip, knees, ankle, ??and spine. This study was approved by the Federal University of Sao Paulo (4.286.547) and Altino Ventura Foundation (4.241.155) Institutional Review Board.</p> <p>Results: Twenty-six children with a mean age [SD] of 6.8 [0.7] years (range, 4 - 7 years) were enrolled. According to their neurological clinical characteristics, 21/26 children had microcephaly, and 16/26 were considered severe. All children had hypertonia and were using anticonvulsant medication (26). Regarding visual characteristics, most children (20/26) were classified as having moderate or severe visual impairment or blindness, 17/26 had strabismus, and 6/26 had nystagmus. Regarding posture alignment, most children (18/26) presented alterations in the postural alignment of the head and hips, and 23/26 presented asymmetry in the shoulder joints. In addition, 9/26 children had spine deviations. The children had an average of 24.4 degrees of deviation in body segments, while the standard is 4.6 degrees in typical individuals.</p> <p>Conclusion: All children with CZS had more than half of their body segments with postural changes. The associated neurological, motor, sensory, and visual disorders that limit body perception, tone regulation, muscle action, and functionality contribute to asymmetrical and inadequate postural patterns. Financial Support: FAV</p> <p>Keywords: Congenital zika syndrome; posture; visual disorders; microcephaly</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(PH) PHARMACOLOGY</p>	<p>30. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Felipe Pereira PG1</p> <p>e-mail: felipe_pera@hotmail.com</p> <p>Advisor: Eduardo Buchelle Rodrigues</p> <p>CEP Number: 88330021</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>ANGIOGENESIS</p>	<p>5. ABSTRACT (REQUIRED): Title: Placebo-Controlled Trial of Oral Lamivudine for Diabetic Macular Edema</p> <p>Author and Co-authors: Felipe Pereira, Joseph Magagnoli, Meenakshi Ambati, Talita Fernandes de Oliveira, Juliana Angélica Estevão de Oliveira, Vinicius Oliveira Pesquero, Lucas Zago Ribeiro, Dante Akira Kondo Kuroiwa, Fernando Korn Malerbi, Sergio Atala Dib, Nilva Bueno Moraes,</p> <p>Purpose: Diabetic macular edema poses a significant global health challenge, as it is a leading cause of vision loss. Current standard of care involves expensive and often burdensome monthly intravitreal injections of anti-vascular endothelial growth factor (VEGF) drugs, which also carry risks of complications. In contrast to current anti-VEGF medications, lamivudine is an orally administered medication used for the treatment of retroviral infections. We sought to determine whether lamivudine, an inhibitor of reverse-transcriptase and inflammasome activity, improves vision in center-involved diabetic macular edema.</p> <p>Methods: In this double-blind, randomized trial, we assigned 24 adults (mean age, 62.7±5.9 years) with diabetic macular edema involving the macular center and visual-acuity letter score less than 69 to receive oral lamivudine at a dose of 150 mg twice daily (10 participants, 16 eyes) or oral placebo (14 participants, 21 eyes). The study drugs were administered for 8 weeks. All participants were assigned to receive intravitreal bevacizumab at a dose of 1.25 mg at week 4. The primary outcome was the mean change in visual acuity. In addition, comparisons to aflibercept, bevacizumab, and ranibizumab were made using synthetic controls from the DRCR.net Protocol T study.</p> <p>Results: From baseline to 4 weeks, mean visual-acuity letter score improved by 9.8 with lamivudine and decreased by 1.8 with placebo (P'</p> <p>Conclusion: Among patients with center-involved diabetic macular edema and visual-acuity letter score less than 69, oral lamivudine improved vision.</p> <p>Keywords: Diabetic macular edema; lamivudine; inflammasome; randomized clinical trial</p>
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(RE) RETINA AND VITREOUS

3. THEME: (REQUIRED) Check one:

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(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

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Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

31. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Lucas Zago Ribeiro PG1

e-mail: lucaszagoribeiro@gmail.com

Advisor: Caio Regatieri

CEP Number: 49171021.6.0000.5505

5. ABSTRACT (REQUIRED):

Title: Automated machine learning model for fundus Image classification by health-care professionals with no coding experience

Author and Co-authors: Lucas Zago Ribeiro, MD, Luis Filipe Nakayama, MD, Fernando Korn Malerbi, MD, PhD, Caio Vinicius Saito Regatieri, MD, PhD

Purpose: To assess the feasibility of code-free deep learning (CFDL) platforms in the prediction of binary outcomes from fundus images in ophthalmology, evaluating two distinct online-based platforms (Google Vertex and Amazon Rekognition), and two distinct datasets.

Methods: Two publicly available datasets, Messidor-2 and BRSET, were utilized for model development. The Messidor-2 consists of fundus photographs from diabetic patients and the BRSET is a multi-label dataset. The CFDL platforms were used to create deep learning models, with no preprocessing of the images, by a single ophthalmologist without coding expertise. The performance metrics employed to evaluate the models were F1 score, area under curve (AUC), precision and recall.

Results: The performance metrics for referable diabetic retinopathy and macular edema were above 0.9 for both tasks and CDFL. The Google Vertex models demonstrated superior performance compared to the Amazon models, with the BRSET dataset achieving the highest accuracy (AUC of 0.994). Multi-classification tasks using only BRSET achieved higher overall performance with Google's models, achieving AUC of 0.994 for laterality, 0.942 for age grouping, 0.779 for gender identification, 0.857 for optic, and 0.837 for normality.

Conclusion: The clinical application of autoML models still faces several barriers, including high costs, the difficulty in extracting useful information from the "black box" nature of the models, and the fact that platforms are not yet suitable for approval by regulatory agencies at the level required for clinical trials. The study demonstrates the feasibility of using automated machine learning platforms for predicting binary outcomes from fundus images in ophthalmology. It highlights the high accuracy achieved by the models in some tasks and the potential of CFDL as an entry-friendly platform for ophthalmologists to familiarize themselves with machine learning concepts.

Keywords: Artificial intelligence, dataset, diabetic retinopathy, machine learning

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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: De-identification and obfuscation of sensitive attributes from retinal scans</p> <p>Author and Co-authors: Wu C, Yang X, Gilkes EGG, Cui H, Sun N, Liao Z, Fan B, Santillana M, Silva P, Regatieri C, Celi L, Nakayama LF</p> <p>Purpose: In ophthalmology, the use of ancillary imaging exams in diagnosing, following up, and treating diseases has great potential for Artificial Intelligence (AI) to recognize image patterns to augment robust clinical decision-making. Human impossible tasks such as identifying sex, age, and race through retinal exams raise concerns about shortcuts in AI predicting pathological conditions. This project aims to apply a de-identification method and differential privacy to identify the capacity to identify demographic and diabetic retinopathy.</p> <p>Methods: The experiments were conducted using the BRSET and Diabetes Center (DC) set with a total of 35,510 images. We applied obfuscation method to entire image and over the vessels. The snow model consist of adding pixel-level noise by arbitrarily re-assigning pixel intensities from the calculated average of the whole dataset pixel intensity for each RGB channel. To evaluate the de-identification method performance, we used a pretrained ResNet200d to predict the patient's sex and diabetic retinopathy in the original and de-identified images. A FR-UNet was applied to segment the retinal vessels.</p> <p>Results: The gender identification achieved 75.12% accuracy in BRSET and 82.2% in DC. The DR classifier had F1 scores of 82.6% in BRSET and 79.5% in the DC. In 50% manipulated pixels, gender classification accuracy dropped to 52.15% in BRSET and 42.59% in DC. The DR F1 score decreased to 64.5% in BRSET and 55.9% in DC. With 50% manipulation of vessel pixels, gender accuracy dropped to 58.1% in BRSET, while the DR F1 score reached 72%. In DC, gender accuracy remained at 42.59%, and the DR F1 score was 55.9%.</p> <p>Conclusion: We report DP-Snow, a modified de-identification method using DP to quantify privacy. We found that manipulating 50% of pixels renders the AI model incapable of determining gender while preserving accuracy of DR classification. Remarkably, retinal vessel data plays a more significant role in gender identification than in DR classification. Applying DP-Snow to retinal images maintains human interpretability, reduces demographic bias, and enhance privacy. This approach offers a promising pathway for securely integrating privacy measures into medical image analysis, bolstering the reliability of downstream applications.</p> <p>Keywords: Artificial Intelligence, Privacy</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>CELL THERAPY</p>	<p>5. ABSTRACT (REQUIRED): Title: Superselective intra-arterial chemotherapy for advanced intraocular Retinoblastoma.</p> <p>Author and Co-authors: Luiz Fernando Teixeira, Jose Roberto Fonseca, Monique Mangeon, Bruna Morales, Ricardo Pedro Casaroli Marano, Carla Renata Macedo Advisor: Professor Juliana M Ferraz Sallum</p> <p>Purpose: To evaluate the experience of using superselective intra-arterial chemotherapy (SIAC) for group D and group E retinoblastoma eyes in one referral center in São Paulo-Brazil (GRAACC/UNIFESP).</p> <p>Methods: Retrospective interventional study. 102 eyes (76 group D eyes and 26 group E eyes) of 97 patients with retinoblastoma Group D or Group E were treated with SIAC as primary or secondary therapy. One to three different drugs were used (Melphalan 3,0-7,5mg, Topotecan 0,3-2,0mg, Carboplatin 20-40mg) as necessary. Adjuvant therapy was used as needed to consolidate treatment.</p> <p>Results: The mean patient age at first SIAC was 22 months (median 16, range 6-105 months). The treatment was secondary in 75 eyes (73%) and primary in 27 eyes. 396 infusions were performed, with a mean of 3.8 cycles per eye (median 3, range 1-12 cycles). Melphalan plus topotecan and carboplatin (M+T+C) were used in 52 eyes (51%), melphalan and topotecan (M+T) in 42 eyes (41%), melphalan (M) alone in 6 eyes (6%) and topotecan and carboplatin in one eye. Intravitreal chemotherapy with Melphalan and/or Topotecan was used as adjuvant treatment for vitreous disease in 39 eyes (38%), in 41% of group D eyes and 31% of group E eyes. No eye received external beam radiotherapy. At a mean follow up of 89 months (median 84, range 48-145 months) all patients are alive with no metastatic disease, extra-ocular extension, or secondary leukemia. No neurological complications were reported. 84 eyes (82%) were preserved 85% of group D and 73% of group E eyes.</p> <p>Conclusion: The use of SIAC as primary or secondary therapy modality to treat group D and group E eyes showed successfully results.</p> <p>Keywords: Retinoblastoma,</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>34. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Luiz Filipe Adami Lucatto PG1</p> <p>e-mail: filipeadami@yahoo.com.br</p> <p>Advisor: Eduardo Buchelle Rodrigues</p> <p>CEP Number: 5.383.484</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: TELEMENTORING VERSUS FACE-TO-FACE MENTORING IN THE TRAINING OF SCLERAL FIXATION SURGERY OF INTRAOCULAR LENSES</p> <p>Author and Co-authors: Luiz Lucatto, MD, Juliana Prazeres, MD, Gabriel Barbosa, MD, Eduardo Novais, PhD Ricardo Leitão Guerra, MsC, Emmerson Badaró, PhD, Luiz Lima, PhD and Eduardo Rodrigues, Ph</p> <p>Purpose: To assess telementoring as a complementary tool for surgical training of a scleral fixation technique that uses a 4-haptic IOL and Gore-Tex CV-8 polytetrafluoroethylene sutures, by comparing with face-to-face mentoring using a 3D visualization system. DESIGN: Randomized, controlled, two-arm, blinded clinical trial. PARTICIPANTS: 132 participants (retina and anterior segments surgeons, fellows, and ophthalmology residents), with no previous experience with a technique of 4-point scleral IOL fixation using Gore-Tex sutures.</p> <p>Methods: Using a 3D visualization system, 132 participants were randomized into face-to-face mentoring (n = 66) and telementoring (n = 66). The procedure was performed in a model suitable for training in IOL fixation SimulEYE®. In the telementoring group, the images captured on a local computer were sent to a second computer located in another room through a teleconferencing platform in real-time. Nine steps of the recorded procedure were evaluated and scored by 2 masked independent surgeons. The primary outcomes were the global score (the sum of each score on the rubric), surgical failure, and surgical time (in seconds).</p> <p>Results: The study included 73 (55%) men and 59 (45%) women with a mean age of 33.9 years (range 26 to 56 years). The mean career time was 7.19 years (range 0 to 30 years). Surgical success was achieved in 98.5% in the face-to-face group and in 95.5% in the telementoring group (p-value = 0.619). Participants with more than 13 years since residency within the telementoring group showed lower scores on the skill scale than those allocated in the face-to-face group. Minimal technical problems were reported in 8 procedures in the telementoring group (12%), without interfering with the surgical result.</p> <p>Conclusion: This study shows telementoring as a promising tool, breaking geographical barriers for skill and knowledge transfer. We lack evidence in terms of group differences for superiority comparing face-to-face and telementoring, in addition to presenting comparable results regarding surgical success and failure. Further research is crucial to assess telementoring's impact in other ophthalmic surgeries.</p> <p>Keywords: Surgical Learning; Telementoring; Scleral Fixation Surgery; Vitreoretinal surgery</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'</p> <p>Paper</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
<p>Deadline: 11/2023</p>	
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	

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(RE) RETINA AND VITREOUS

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Paper

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Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

35. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Mariana Batista Goncalves PG1

e-mail: mari.batista.124@gmail.com

Advisor: Mauricio Maia

CEP Number: 1418/2017

5. ABSTRACT (REQUIRED):

Title: Mathematical modeling for drug delivery and inflammation process: an application in macular edema

Author and Co-authors: M. B. Gonçalves, E. Gudiño, L. H. Lima, M. Maia and C. M. Oishi

Purpose: To introduce a mathematical model for the drug release from an intravitreal implant and the subsequent effect of the drug on the inflammation process of macular edema.

Methods: Coupling the drug transport problem with the growth of the edema, we compare the numerical simulations with patient-specific medical images. We fit the model with respect to one parameter and match the retinal thickness observed in the patient. After the validation of the proposed model, we perform numerical experiments regarding patient-specific treatments. In particular, we analyze the drug concentration in the different sub-domains (e.g., the implant and the retina) and simulate the scenario of edema recurrence and implant re-injection.

Results: According to our model, in the first 10 days after implant injection, there is an increase in retinal thickness, and after this period, there is a progressive reduction in macular edema. To simulate a reinjection scenario, we model the injection of a new implant at day 176. The drug concentration and retinal thickness show a similar behavior compared to that observed after the first injection, with a 12.97% reduction in retinal thickness 60 days after the second injection.

Conclusion: The proposed mathematical model has the potential to provide important insights into the use of intravitreal dexamethasone implants and the treatment of macular edema.

Keywords: Biodegradable implant, drug delivery, non-Fickian diffusion, Implicit-Explicit schemes

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>36. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Vinicius Campos Bergamo PG1</p> <p>e-mail: viniciusbergamo.epm@gmail.com</p> <p>Advisor: Mauricio Maia</p> <p>CEP Number: 209/2019</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED):</p> <p>Title: Analysis of the incidence of endophthalmitis after cataract surgery, before and after use of intracameral moxifloxacin and comparative analysis between public and private services.</p> <p>Author and Co-authors: VINICIUS CAMPOS BERGAMO, LUIS FILIPE NAKAYAMA, MAURO SILVEIRA DE QUEIROZ CAMPOS, ANA LUISA HOFLING-LIMA, MAURÍCIO MAIA</p> <p>Purpose: The objective of our study is to determine the incidence of acute endophthalmitis after cataract surgery before and after the use of prophylaxis with intracameral moxifloxacin in a tertiary hospital and analyze it with data from private services.</p> <p>Methods: Retrospective study that will analyze epidemiological data from patients who underwent cataract surgery and developed acute endophthalmitis in a tertiary hospital and a private service.</p> <p>Results: Data will be collected between the years 2012 and 2022 and is still in progress. We expect to find a significant reduction of endophthalmitis rates after the intracameral moxifloxacin prophylaxis. Therefore, we intend to compare the endophthalmitis rates among the study centers.</p> <p>Conclusion: Endophthalmitis is a rare disease, but a severe form of ocular inflammation, secondary to infection of the intraocular cavity, which can lead to irreversible visual damage if not treated correctly and in a timely manner. The use of intracameral moxifloxacin seems to be a good approach in endophthalmitis prophylaxis, specially in low-income countries.</p> <p>Keywords: endophthalmitis, cataract, surgery, retina</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Fastpaper</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
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Purpose
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Results,
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Keywords

Poster guidelines:
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37. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Paula Sakemi Fukuhara PG1

e-mail: psfukuhara@gmail.com

Advisor: Michel Eid Farah

CEP Number: 1234

5. ABSTRACT (REQUIRED):

Title: Silicone oil droplets released from intravitreal injections of Aflibercept and Bevacizumab on Muller Cells (MIO-MI) in vitro

Author and Co-authors: Paula S.Fukuhara, Gustavo B.Melo, Marilyn Chwa, M.Cristina Kenney, Michel E.Farah

Purpose: The number of intravitreal injections increased after approval of anti-VEGF agents to treat retinal diseases. Silicone oil (SO) droplets may be released from the syringes during anti-VEGF intravitreal injections. Some publications have shown that intense agitation of syringes causes increased formation of SO droplets that could be released during the procedure possibly causing inflammatory reactions. Based on this, we analyzed the effects of silicone oil droplets released from intravitreal injections of anti-VEGFs in Muller cells (MIO-M1) cells in vitro.

Methods: MIO-M1 cells were cultured in 96 well plates. Some cultures were treated for 48 hours with Bevacizumab and Aflibercept with and without agitation of the syringes, while others were served as controls. Cultures were analyzed for cell viability (MTT assay), Reactive Oxygen Species (ROS) and JC-1 (mitochondrial membrane potential). Two syringes brands available for intravitreal injections were compared (BD-Becton Dickinson and SR-Saldanha Rodrigues), 1ml/cc both. The conditions were: untreated, bevacizumab and aflibercept (agitation versus no agitation in all groups). The experiments were repeated twice. P values \'

Results: In SR and BD syringes, cell viability and ROS showed no difference between groups with or without agitation. The JC1 assays of BD syringes in both groups treated with anti-VEGFs, showed the mitochondrial membrane potential decreased when flicked (bevacizumab $p=0.0151$ and aflibercept $p=0.077$). In SR syringes, JC1 decreased in control groups when flicked ($p=0.0014$) and in the aflibercept group when flicked ($p=0.0471$).

Conclusion: The SO droplets released during the intravitreal injections, with or without agitation, had no effect on cell viability and ROS in both syringe brands tested on MIO-M1 cells, but affected the JC1 levels in BD and SR syringes decreasing in groups with agitation treated with anti-VEGF. The results highlight that the agitation of the syringe during the intravitreal injection may contribute to decrease the mitochondrial membrane potential. Our group is doing new experiments in order to better understand the side effects of the SO droplets released during intravitreal injections of anti-VEGFs and to assist in the future development of new SO-free syringes.

Keywords: Retinal cells, syringes

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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

38. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Ramon Antunes de Oliveira PG1

e-mail: ramonntt@gmail.com

Advisor: Mauricio Maia

CEP Number: 0686/2021

5. ABSTRACT (REQUIRED):

Title: Surgical technique for removal of high-density silicone oil (Oxane HD)

Author and Co-authors: Ramon Antunes De Oliveira, Nilva Simeren Bueno De Moraes, Rodrigo Antonio Brant Fernandes, Octaviano Magalhaes Junior, Mauricio Maia

Purpose: The main drawback for the use of heavy silicone oil (HSO) Oxane HD is the difficulties it presents during removal. It differs from conventional silicone oil removal because it progressively concentrates in the posterior pole during the removal because of its heavier than water density.

Methods: We describe a technique to facilitate proper HSO Oxane HD removal and minimize residual posterior bubbles and intraoperative complications.

Results: We describe our pearls for removing HSO to obtain the optimal results. A concern associated with HSO is the difficulty it presents when it is removed.

Conclusion: However, this can be overcome by appropriate modification of surgical techniques during removal to limit intraoperative complications.

Keywords: Heavy silicone oil, Vitrectomy, Instrumentation

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>39. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Erika Sayuri Yasaki PG1 e-mail: erikayasaki@yahoo.com.br Advisor: Juliana Sallum CEP Number: Pc044/2018</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Plasma ceramides role in diabetic retinopathy Author and Co-authors: Yasaki ES, Carvalho LP, Sallum JMF</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Fastpaper</p>	<p>Purpose: To evaluate plasma ceramides as possible biomarkers of diabetic retinopathy. Background: There is evidence in the literature of plasma ceramides role as biomarkers in risk stratification of cardiovascular disease. This finding identifies opportunities for research on the role of ceramide levels in diabetic retinopathy and also study the correlation of macrovascular and microvascular of diabetes complications resulting from chronic exposure to hyperglycemia, dyslipidemia, and inflammation.</p>
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	<p>Methods: Observational cohort study. 309 patients were prospectively enrolled between 2018 and 2020. Group 1 (n=51) healthy status, Group 2 (n=150) diabetics without macrovascular disease, Group 3 (n=108) diabetic with macrovascular disease. Inclusion criteria -Group 1: age over 21 years old, no systemic disease or past history of hospitalization for severe illness nor medication use. Group 2: type 1 or 2 diabetes diagnosed by American Diabetes Association (ADA) criteria, without diabetic retinopathy clinically visible or with clinical retinal micro vasculopathy (non-proliferative or proliferative diabetic retinopathy). Group 3: age over 21 years, patients with acute myocardial infarction who met the criteria for fourth universal consensus on heart attack, clinically stable patients awaiting invasive stratification during myocardial infarction (ST elevation AMI), submitted to the pharmaco-invasive procedure, diabetic patients with acute myocardial. Exclusion criteria: history of active cancer, history of glaucoma or any other ocular disease that not allow retinal analysis, history of stroke with severe sequelae that not allow carrying out protocol examination, severe renal dysfunction (eGFR \')</p>
<p>Deadline: 11/2023</p>	<p>Results: Group 1 had no abnormalities observed in retinography exam analysis. Group 2 and 3 had about 30% of patients with nonproliferative diabetic retinopathy. Group 3 had twice as many patients with proliferative lesions as group 2 (3,5% vs 7%) (p-value \')</p>
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	<p>Conclusion: Microvascular disease in diabetic patients may be correlated with ceramides profile. Collected data are under analysis for further conclusion.</p> <p>Keywords: diabetes, ceramide, retinopathy, dyslipidemia</p>

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RX) REFRACTION-CONTACT LENSES</p>	<p>40. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Helena Maria Costa Oliveira PGO</p> <p>e-mail: hmcoliveira@gmail.com</p> <p>Advisor: Denise de Freitas</p> <p>CEP Number: DECLARAÇÃO DE RESPONSABILIDADE</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED):</p> <p>Title: A systematic review of observational studies on the use, maintenance and care of contact lenses.</p> <p>Author and Co-authors: Helena Maria Costa Oliveira, Denise de Freitas, Cesar Lipener</p> <p>Purpose: To establish practices for the use, maintenance and care of contact lenses.</p> <p>Methods: A systematic review of observational studies on the use, maintenance and care of contact lenses for aesthetic, cosmetic and therapeutic purposes will be carried out. The objective is to establish good practices for use, maintenance and care for the development of a manual.</p> <p>Results: Expected results: check the age range and gender of contact lens wearers. Check how well users assimilate and maintain the guidelines provided at the beginning of wearing their lenses. Check habits such as hand washing before inserting and removing contact lenses, use of which type of towel they use to dry their hands, type of multipurpose solution used, discard, use of the lenses during the shower in between.</p> <p>Conclusion: Frequent and effective patient-practitioner communication is essential to ensure that instructions regarding contact lens use, care, and maintenance are understood and followed. Given the relevance of good patient compliance, the responsibility of practitioners to provide adequate information may not be neglected.</p> <p>Keywords: Compliance; Complications; Contact lens; Education; Microbial keratitis, contact lens solutions; Deposits; Efficacy; Follow-up; Infections; Maintenance; Surveillance; Tolerance; Hygiene; Patient education</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Paper</p>	
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RS) REFRACTIVE SURGERY</p>	<p>41. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Adriana Falcão Lyra PG1</p> <p>e-mail: adriana.falcao@unifesp.br</p> <p>Advisor: Walton Nosé</p> <p>CEP Number: 52041345</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Corneal High Order aberrations and Epithelial remodeling in Femtolasik Topoguided and customized asphericity in contralateral eye: randomized double-blind prospective study</p> <p>Author and Co-authors: Lyra, AFV, Alves, EM, Montenegro, AAL, Lucena, NSM, Cardoso, MT, Alves, LMM, Maia, CBS, Fontes, BM, Nose, W</p> <p>Purpose: To Evaluate the epithelial remodeling by the SD-OCT Avanti® and corneal HOA in the pre- and post-operative period of regular corneas submitted to topography-guided Femtolasik (Contoura® Vision Training Method-software from WaveLight®, Alcon) and compare them with the contralateral eye that underwent, in a randomized and double-blind manner, ablation customized by asphericity (Custom-Q®, software a WaveLight®, Alcon®) in myopic eyes with or without astigmatism.</p> <p>Methods: We conducted a prospective, randomized and double-blind study. Patients underwent pre- and postoperative epithelial mapping and corneal tomography to assess epithelial thickness map and high-order aberrations of the cornea anterior surface, visual acuity and refractive evaluation. Ethics Committee Approval Number 3.245.443- UNIFESP. Financial Support- None.</p> <p>Results: This study enrolled 96 normal eyes of 48 patients. Uncorrected 20/20 visual acuity or better was achieved in 97% of patients, gains in BCVA and effectiveness in correcting refractive astigmatism were similar in both techniques. We evaluated 17 sectors of the corneal epithelium map, assessed by the SD-OCT Avanti® and we found no significant between-techniques differences pre- and postoperatively (P>.05). HOA RMS, Coma Z3±1 , Trefoil Z3-3 and tissue consumption exhibited statistically significant differences between-technique differences (P<'.05).</p> <p>Conclusion: Contoura® and CustomQ® techniques were similar with respect to refractive and visual outcomes after 3 months, as well as in epithelial remodeling. Contoura® provides lower postoperative HOA RMS, Coma Z3±1 and Trefoil Z3-3 values, but the techniques showed no differences in the correction of the corneal astigmatic wavefront component and in the spherical aberration after 3 months.</p> <p>Keywords: Epithelial remodeling; Contoura; Custom Q; Femtolasik; HOA</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(CA) CATARACT</p>	<p>42. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Arthur Buffara Van Den Berg PG1</p> <p>e-mail: arthur-vdb@hotmail.com</p> <p>Advisor: Wallace Chamon</p> <p>CEP Number: 936</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: In vivo optical performance and wavefront analysis of a new monofocal intraocular lens designed to enhance depth of focus thru positive spherical aberration</p> <p>Author and Co-authors: Arthur van den Berg Co-authors: Roberta van den Berg, Karolinne Maia Rocha, Wallace Chamon</p> <p>Purpose: The purpose of this study is to evaluate visual function, automated refraction, and in vivo wavefront analysis with a monofocal intraocular lens (IOL) based on positive spherical aberration (SA) designed to extend the depth of focus.</p> <p>Methods: 31 eyes of 18 patients that underwent monofocal IOL with positive spherical aberration (RAO200E, Rayner) implantation after cataract surgery were included in this prospective study. Refractive outcomes, including manifest refraction spherical equivalent (MrxSE), automated refraction SE, UCVA, DCVA and DCNVA were assessed. Corneal asphericity (Q value) and natural pupil size were measured preoperatively. Lower-order aberrations (LOAs) and higher order aberrations (HOAs) were obtained from four different aberrometers (double-pass skiascopy, ray-tracing, Hartman Shack sensor and combined Scheimpflug and Hartman Shack technologies at 1-3 months postoperatively.</p> <p>Results: Mean UCVA was 0.115 logMar ± 0.142 and DCNVA 0.23 logMar ± 0.206. Wavefront analysis for a 4.5mm pupil size revealed 0.132µm ± 0.04 for the 4th order spherical aberration (SA) on average using a combined Scheimpflug and Hartman Shack device, 0.117 µm (± 0.07) for the Hartman Shack sensor device and 0.06 µ ±0.11 for double pass skiascopy device (P=0.059). No statistically significant difference was found for 4th order SA among aberrometers. Statistically significant difference was found in 6th order aberration for a 4.5mm pupil size between the devices (P=0.022). Wavefront automated refraction showed myopic results up to -0.75D compared to MrxSE for all devices studied (P=0.01).</p> <p>Conclusion: In vivo wavefront analysis of this new IOL with increased positive spherical aberration has shown a synergistic effect contributing to extending depth of focus without compromising distance visual acuity.</p> <p>Keywords: Spherical aberration, depth of focus, Intraocular lens</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Paper</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
<p>Deadline: 11/2023</p>	
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RS) REFRACTIVE SURGERY</p>	<p>43. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Aydano Pamponet Machado PG1</p> <p>e-mail: aydano.machado@gmail.com</p> <p>Advisor: Renato Ambrósio Jr.</p> <p>CEP Number: 68996717.5.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Enhanced Pentacam Index (EPI): structurally characterizing the preoperative patient's corneal stroma.</p> <p>Author and Co-authors: Aydano Machado Marcella Salomão Louise Esporcatte Bernardo Lopes Renato Ambrósio Jr</p> <p>Purpose: The objective of this work is to help the refractive surgeon by developing a predictive computational model to represent the corneal ectasia susceptibility based on the Pentacam corneal structure examination. As well as to evaluate the result archived in comparison with the already published AI-based indexes: Pentacam Random Forest Index (PRFI) and Boosted Ectasia Susceptibility Tomography Index (BESTi).</p> <p>Methods: In order to attain our main objective, we have chosen an artificial intelligence (AI) approach based on machine learning (ML) techniques to build a predictive model that represents the impact of corneal refractive surgery. The developing process was based on knowledge discovery in databases (KDD) practice. The data from 3278 eyes (1609 patients) stables after refractive surgery with a minimum follow-up of 07 years were enrolled from Instituto de Olhos Renato Ambrósio, Rio de Janeiro, Brazil. This study also included a total of 105 eyes (66 patients) who have developed ectasia. Owing to the complex nature of ectasia as a complication of refractive surgery, the preoperative data of patients with post-LASIK ectasia were collected individually from several surgeons around the world.</p> <p>Results: It seems that this will be the last predictive model of my Ph.D., followed by integration with RTA, a predictive model already presented in the previous edition of Research Days. This part of the work is currently in progress, and I am training the machine learning algorithm to build the predictive model. The goal is to finalize the results for presentation in December. The area under the ROC curve (AUC) will be used to compare models. DeLong's test will evaluate statistical significance.</p> <p>Conclusion: The long-term stability after refractive laser surgery which is determined by the good combination of the preoperative biomechanical strength of the patient's corneal stroma, the amount of biomechanical change caused by the surgery, and the postoperative stress load on the cornea. This work will help the refractive surgeon in two of them: the first one is understanding current diagnostic technology to characterize the cornea preoperatively and the implications of keratorefractive procedures on the corneal structure are key points for assessing the risk of ectasia prior to refractive surgery. The second one, the biomechanical or structural impact of refractive laser surgery, is the focus of this work.</p> <p>Keywords: refractive surgery ; biomechanical impact ; RTA ; artificial intelligence ; machine learning</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Perceptions of patients undergoing LASIK with monovision for the treatment of Presbyopia: a qualitative study.</p> <p>Author and Co-authors: Ermano de Melo Alves Paulo Schor Bianca Queiroga de Arruda</p> <p>Purpose: To analyze the perception of people who underwent surgery using the monovision LASIK technique to reduce presbyopia symptoms and to correlate philosophical, neural, ophthalmological, social, and emotional aspects of near vision loss with the passage of time</p> <p>Methods: qualitative research with semi-structured interviews, with open questions and stimuli to report the experience without interruption or inducement. Individuals were anterior presbyopic with associated hypermetropia/astigmatism. All interviews were recorded and transcribed. For content analysis, the Atlas.ti software version 9.1.1 was used, which helped in the selection of codes, subthemes, and main themes. Conducting all stages of the study was based on the 32 items which establishes criteria for qualitative research. The number of patients met the chosen saturation, when new interviews become repetitive, and the researcher understands that they no longer enrich the material to be analyzed.</p> <p>Results: 17 patients between 48 and 60 years old were interviewed, 9 women and 8 men, 8 face-to-face and 9 via video. The analysis of 364 citations generated 5 main themes: 1- time and presbyopia, its causes and meaning, 2- motivational factors for seeking surgery, 3- fear and overcoming it, 4 - suffering and adaptation, 5 - the final effect.</p> <p>Conclusion: Temporality is closely linked with presbyopia surgery. From the beginning, with the elderly associated with the loss of near vision, through the adaptation period and the final satisfaction. Several factors are interconnected: temporality, aesthetics, fear, symbolism, hygiene, importance of near vision, trust in the doctor, influence of friends and family, personality type, among others. During adaptation, there is a significant worsening in the perception of distance vision, however, the recovery of freedom lost with dependence on glasses compensated and was associated with improved self-esteem and a good final judgment. New investigative methods can be adjuvants, such as: ocular electrophysiology, the assessment of personality traits and the creation of archetypal models, but the main thing is the attitude and critical sense of the ophthalmologist throughout the process, just like a sacred rite, because the eyes are considered symbols of the divine.</p> <p>Keywords: LASIK with monovision, LASIK and presbyopia, temporality and vision, presbyopia surgery, symbolism of the eyes, old age and near vision loss.</p>
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(RS) REFRACTIVE SURGERY

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Paper

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Poster guidelines:
90cm x 120cm

45. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Felipe Marques de Carvalho Taguchi PG1

e-mail: felmct@gmail.com

Advisor: Wallace Chamon

CEP Number: 66109322.9.0000.5505

5. ABSTRACT (REQUIRED):

Title: Multiclass classification of normal and keratoconus cornea curvature maps using distinct convolutional neural networks

Author and Co-authors: Felipe Marques de Carvalho Taguchi, Lucas Orlandi Oliveira, Renato Feijó Evangelista, Edson Shizuo Mori, Jarbas Caiado de Castro Neto, Wallace Chamon

Purpose: To test two convolutional neural network (CNN) architectures? performances in multiclass classification of normal and keratoconus anterior cornea curvature maps.

Methods: Cross-sectional observational study based on Scheimpflug anterior cornea axial curvature color maps collected from a single center. Images were labeled by an expert ophthalmologist as normal or abnormal, then graded in four severity levels ranging from KC1 to KC4. Two CNN models were developed using proprietary (M1) and compact convolutional transformer (M2) architectures. Both networks were trained using the same database (60% of the images were used for training, 20% for validation, and 20% for testing). Model performance was measured by its accuracy and confusion matrix distribution.

Results: Of 3,938 images, 662 were labeled by the expert as normal, 689 as KC1, 700 as KC2, 1,617 as KC3, and 270 as KC4. M1 and M2 achieved an accuracy of 74.84% and 76.97%, respectively. The models were capable of adequately stratifying images ? only 9 images (0.23%) were classified beyond adjacent severity levels. Thus, the correct diagnosis was contained within one grade of the predicted classification in 99.77% of the tested images for both networks.

Conclusion: Both models were able to detect and classify keratoconus in the tested sample with reasonable accuracy. Furthermore, these networks could correctly classify cornea abnormalities within an acceptable range of one severity level.

Keywords: Artificial Intelligence; Convolutional Neural Networks; Computer Vision; Keratoconus; Scheimpflug

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(CA) CATARACT

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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

46. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Ivan Corso Teixeira PG1

e-mail: ivancorso@gmail.com

Advisor: Mauro Campos

CEP Number: 1090/2020

5. ABSTRACT (REQUIRED):

Title: Visual quality, high order aberrations and centralization of 3 types of diffractive lenses implanted in patients undergoing phacoemulsification.

Author and Co-authors: Ivan Corso Teixeira, Mauro Silveira de Queiroz Campos

Purpose: To evaluate the quality of vision both objectively, using aberrometry data, and subjectively, using questionnaires, in patients undergoing phacoemulsification with the implantation of 3 different models of diffractive intraocular lenses. Secondly, analyze whether the centralization of the intraocular lens interferes in any way with both assessments.

Methods: This is an interventional study, with random allocation of individuals into 3 groups. All patients will undergo traditional phacoemulsification in both eyes, with each group receiving one of three different types of intraocular lenses: Acrysof IQ Panoptix TFNT00 (Alcon, Geneva - Switzerland), Tecnis Synergy OptiBlue® ZFR00V (Johnson & Johnson Vision, Santa Ana - USA), and AT-LISA trifocal 839MP (Carl Zeiss Jena GmbH, Jena - Germany). Patients will be reevaluated after 3 months, when the following data will be collected: visual acuity with and without correction (distance, intermediate and near), defocus curves, vision quality questionnaires (TypeQ, CatQuest and NavQ) and maps of corneal topography, aberrometry and lens centration.

Results: Until this work was submitted, 43 patients (86 eyes) were selected for the study. Of the 86 eyes, 74 have already been operated on, and 8 are awaiting surgery. 2 patients (4 eyes) were excluded from the study due to failed preoperative examinations. For now, we have complete data, including the 3-month final examination, on 35 patients. The compiled data has not yet been subjected to statistical analysis

Conclusion: In progress

Keywords: Cataract, Intraocular Lens, Presbiopia, Aberrometry

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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Enhanced Monofocal versus Extended Depth of Focus Intraocular Lens: Evidence Based on Meta- Analysis</p> <p>Author and Co-authors: Leonardo Almeida Cabral, Walton Nose, Flavio Hirai.</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>Fastpaper</p>	<p>Purpose: To perform a systematic review, with meta-analysis, comparing clinical outcomes in patients who underwent Cataract Surgery (CS) with the implantation of the following types of intraocular lenses (IOL): Enhanced Monofocal versus Extended Depth of Focus.</p> <p>Methods: Two review authors will assess titles and abstracts of all records identified, independently, strictly obeying the established eligibility criteria. Inclusion: randomized and non-randomized clinical trials, patients with low vision acuity, presenting cataract and/or presbyopia, undergoing CS. Exclusion criteria: Ocular co-morbidities, previous ocular surgery or ocular trauma, unilateral surgery and non-human studies. Scientific articles will be searched from the following databases: EMBASE, MEDLINE, and CENTRAL. The descriptors will be as follows: cataract, phacoemulsification, refractive lens exchange, enhanced monofocal IOL, extended depth of focus and edof. The PRISMA protocol will be used as a reference for data inclusion and utilization, which will be subjected to meta-analysis.</p> <p>Results: The main outcomes are the mean uncorrected binocular distance visual acuity (UDVA), uncorrected intermediate visual acuity (UIVA) and uncorrected near visual acuity (UNVA), measured by LogMAR chart. Additional outcomes: (1) mean uncorrected and corrected monocular distance, intermediate and near visual acuity, measured by LogMAR chart, (2) mean manifest spherical equivalent value (MRSE), (3) spectacle independence and quality of visual function determined by the Patient Reported Spectacle Independence Questionnaire (PRSIQ) or 25-item National Eye Institute Visual Function Questionnaire (NEI-VFQ-25), (4) mean contrast sensitivity in log contrast sensitivity function (log CSF) under photopic and mesopic conditions, (5) monocular distance-corrected defocus curve tested from -4.0D to +1.0D, (6) reporting of photic disturbance, represented by halos and glare.</p> <p>Conclusion: This study aims to generate well-structured conclusions regarding the advantages and disadvantages between Enhanced Monofocal and Extended Depth of Focus (EDOF) intraocular lenses, increasing the scientific knowledge on the subject and facilitating decision-making for cataract surgeons.</p> <p>Keywords: Cataract surgery, presbyopia, intraocular lens</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Value-based Health Care Analysis in Cataract Surgery</p> <p>Author and Co-authors: Raphael de Faria Schumann Paulo Schor</p> <p>Purpose: The aim of this study is to analyze, through the vision of the Value-Based Health Care (VBHC), the quality of treatment cycle of patients who underwent facetectomy at Hospital São Paulo. VBHC is about the best results that matter to the patient at the lowest possible cost for that result.</p> <p>Methods: The patient's perception is collected through Patient Reported Experience Measures (PREMs) with structured interviews (or questionnaires) made with the participants at the end of the treatment cycle (3 months), then the Patient Reported Outcome Measures (PROMs) and the clinical outcomes will be analyzed. We randomly selected 280 files of patients who were scheduled only to facetectomy and collected data regarding the outcomes that matters to patient and the clinical outcomes that matters to the hospital. After 90 days of the surgery we interviewed 70 patients regarding the satisfaction with the procedure and the doctors' and hospital's NPS. With the results of the data collections we will carry out statistical tests to obtain the main factors that could lead to the best patient's experience and best clinical outcomes. The analyzes considered different outcomes as: i) the patient's experience, ii) postop VA improvement, iii) BCVA after surgery, iv) OR time, v) the occurrence of any operative (intra or post) complication.</p> <p>Results: Demographic Factors Age: 69.0 (PD 10.7) Female: 57.1%, Education Level: None: 11,0% , Basics: 48.3%, Medium: 26.3% and Superior: 14.4%, Epidemiologic Factors: Systemic Comorbidity: Any: 85.1% Ocular Comorbidity: Any: 51.6% Clinical Outcomes: VA Improvement: 89.7% (IC 95% 85.4, 92.8) BCVA: 20/20 to 20/25: 57% 20/30 to 20/40: 22% 20/40 to 20/100: 11,5% '<'20/100: 7,6% Intraop Complication: 10.2% Postop Complication: 14.9% OR Time: 90.6 min (PD 31.9) Surgery Time: 55.3 min (PD 27.0) Idle OR Time: 35.3 min (PD 16.7) Correct Filling Records Index: Clinical: 46% Surgical: 92% Patient's Experience Hospital's NPS: 91 Postop Vision Much Better or Better : 84% Doctors' NPS: 93 Very Satisfied or Satisfied with the result : 91% Correlation between patient's satisfaction and clinical conditions: Subcapsular cataract: p=0,0283</p> <p>Conclusion: The results show us that despite all the difficulties at the beginning of the pandemic, patients felt well cared for and had good clinical results in general. The study demonstrates the feasibility of collecting outcome measures in a practical and objective way and without the need for large expenses in financial or human resources. For the successful implementation of a value agenda, a joint effort by all sectors is necessary for correct data collection and subsequent analysis of the indicators.</p> <p>Keywords: VBHC cataract</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(LA) LABORATORY</p>	<p>49. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Lydianne Lumack do Monte Agra PG1</p> <p>e-mail: ly.agra@gmail.com</p> <p>Advisor: Mauricio Maia</p> <p>CEP Number: 834895</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Accuracy, Precision, and Residual Volume of Commonly Used Syringes for Intravitreal Injections and the Impact on Intraocular Pressure</p> <p>Author and Co-authors: Lydianne L.M. Agra, Alexander Sverstad, Thiago A. Chagas, Rodrigo H. Araújo, Larissa G. Oliveira, Olav Kristianslund, Goran Petrovski, MD, Morten Carsten Moe, Øystein Kalsnes Jørstad, Gustavo Barreto Melo, Maurício Maia</p> <p>Purpose: To compare accuracy, precision, and residual volume of commonly used syringes for intravitreal injections and to assess the intraocular pressure rise by variations in volumes delivered</p> <p>Methods: We tested 8 syringe models with 2 different needle setups, with 2 different solutions (distilled water or glycerin) and target volumes (50 and 70 mL). To obtain the delivered and residual volumes, we weighed the syringe-needle setups with scale before liquid withdrawal, with liquid, and after liquid release. We also created an experimental eye model to determine the transient rise in IOP following stepwise 10-mL increases in injection volumes</p> <p>Results: We tested a total of 600 syringe-needle setups. Becton Dickinson (BD) Ultra-Fine, Zero Residual, and Zero Residual Silicone Oil-free syringes showed the lowest residual volume ($P < 0.001$) in comparison with the others. The most accurate setups were (percentage deviation from target volume): Zero Residual Silicone oil-free (β 0.70%), Zero Residual 0.3 ml (β 4.49%), BD Ultra-Fine (β 7.83%), Injekt-F (9.42%), Norm-Ject (β 15.88%), Omnifix-F (β 16.96%), BD Plastipak Brazil (β 17.96%), and BD Plastipak Spain syringes (β 19.41%). There was a statistically significant difference between the Zero Residual Silicone Oil-free syringe and all other syringes ($P < 0.0001$), except for the Zero Residual 0.3-ml syringe ($P = 0.029$). The coefficient of variation was low for all syringes. The modeled IOP rise ranged from 32.3 (standard deviation [SD], 1.4) mmHg for 20-mL injection volume to 76.5 (SD, 1.0) mmHg for 80-mL injection volume. For the standard 50-mL injection volume, the peak pressure was 50.7 (SD, 0.1) mmHg, and the pressure rise duration was 28 (SD, 2) minutes</p> <p>Conclusion: There were significant differences in accuracy and residual volume between syringes, whereas they showed a high precision. Volume excess results in a considerable increase in IOP rise after injection. These findings may provide a relevant overview to clinicians and to both device and drug manufacturers regarding pharmacoeconomic, safety, and efficacy issues</p> <p>Keywords: Accuracy, Anti-VEGF, Intraocular pressure, Intravitreal injection, Residual volume, Syringe</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'</p> <p>Fastpaper</p>	
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(CO) CORNEA AND EXTERNAL DISEASE

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INFECCION

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Paper

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(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
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(EX) EXPERIMENTAL SURGERY
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(LV) LOW VISION
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(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
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(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
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Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

50. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Renata Cavalcanti Portela Boro PGO

e-mail: renatacportela13@gmail.com

Advisor: Denise de Freitas

CEP Number: 00515418.0.0000.5505

5. ABSTRACT (REQUIRED):

Title: Evaluation of diagnostic methods for Acanthamoeba keratitis, including PCR analysis of corneal scrapings

Author and Co-authors: Renata Cavalcanti Portela Boro, Luciana Lopes Rocha, Itala de Moraes Vieira Gatti, Myrna Serapiao dos Santos, Maria Cecilia Zorat-Yu, Talita Trevizani Rocchett, Ana Luisa Hofling-Lima, Denise de Freitas

Purpose: To evaluate the sensitivity and specificity of diagnostic methods for Acanthamoeba keratitis, using culture in a specific medium as the gold standard compared with confocal microscopy and PCR analysis of Acanthamoeba scrapings from infectious keratitis.

Methods: All patients who belong to the Cornea and External Diseases Outpatient Clinic at Hospital São Paulo with infectious keratitis, suspected of Acanthamoeba infection and virgins on specific treatment for Acanthamoeba (brolene, biguanide, chlorhexidine) will be submitted to the Acanthamoeba infection investigation protocol, which it is composed of the following exams, in this order: confocal microscopy, in order to evaluate the presence of cysts compatible with the presence of Acanthamoeba or a characteristic inflammatory pattern, corneal keratitis smear performed with a Kimura spatula and deposited on slides that will be stained with iron hematoxylin or by the Giemsa method, corneal scraping cultures on blood agar, chocolate agar, sabouraud agar, thioglycollate, BHI and Acanthamoeba medium (non-nutrient agar enriched with dead Escherichia coli), polymerase chain reaction PCR analysis of scrapings from infectious corneal keratitis in investigation of Acanthamoeba. Finally, all diagnostic methods will be tabulated and analyzed according to sensitivity and specificity of positivity by Acanthamoeba.

Results: In progress

Conclusion: In progress

Keywords: Acanthamoeba keratitis; confocal microscopy; PCR for acanthamoeba

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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Scheimpflug-derived corneal higher order aberrations post intrastromal corneal ring segments for keratoconus patients</p> <p>Author and Co-authors: Author: Roberta Matschinske van den Berg Co-authors: Arthur van den Berg, Maya Dodhia, Michel Shahid, Alessandro A. Jammal, Karolinne Maia Rocha</p> <p>Purpose: This study hypothesises that changes in corneal higher-order aberrations considering different pupil sizes before and after the implantation of intrastromal corneal ring segments (ICRS) could impact quality of vision in patients with keratoconus.</p> <p>Methods: Twenty-one keratoconic eyes that underwent ICRS implantation were included in this prospective interventional study. Refractive outcomes, including manifest refraction, spherical equivalent (SE), and CDVA were collected from electronic medical records before and after surgery. Corneal asphericity (Q value), keratometry values (K1 and K2), mean keratometry (Km), and maximum keratometry (Kmax) were extracted from the Pentacam HR ®. Lower-order aberrations (LOAs) and higher order aberrations (HOAs) were obtained from the Zernike analysis report map for 6mm, 4mm, and 2mm pupil diameters. Post-operative measurements were collected at 6 months after the procedure.</p> <p>Results: ICRS implantation demonstrated a statistically significant effect in vertical coma with a -.23 reduction (p = 0.015) for a 4mm pupil size and a ?1.384 reduction (p '<' 0.001) for 6mm, with no significant effect at 2mm. Horizontal coma, astigmatism 0°, astigmatism 45°, trefoil 5th order 30°, and RMS HOA demonstrated significant reductions at 4mm or 6mm pupil sizes, but not at 2mm.</p> <p>Conclusion: Our analysis demonstrates a favorable effect of ICRS implantation on larger pupil sizes, suggesting the importance of pupil size as it correlates with HOAs reduction.</p> <p>Keywords: keratoconus, higher-order aberrations, intrastromal ring segments</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Rose Bengal Eletromagnetic Activation with Green Light for Infection Reduction (REAGIR) ? a randomized, double-blind, sham-controlled study for treatment of acanthamoeba and fungal keratitis</p> <p>Author and Co-authors: Kase C, Tabuse AM, Rocchetti TT, Yu MCZ, Barcelos R, Sant?Ana VP, Lietman TM, Rose-Nussbaumer JR, Campos MSQC, Freitas D, Hofling-Lima AL</p> <p>Purpose: To determine if crosslinking with rose bengal and green light (RB-PDAT) is a beneficial adjuvant in the treatment of fungal, acanthamoeba, and smear or culture negative corneal ulcers</p> <p>Methods: Patients presenting to one of the Aravind Eye Hospitals in India, or to the Hospital Sao Paulo in Brazil (UNIFESP) with either smear or culture positive fungal or acanthamoeba keratitis and Snellen visual acuity of 20/40 or worse, will be eligible for inclusion. Those who agree to participate will be randomized to sham RB-PDAT or RB-PDAT. RB-PDAT will be performed by applying a solution of Rose Bengal 0.1% to the de-epithelized cornea for 30 minutes followed by irradiation with a 6mW/cm2 custom-made green LED source for 15 minutes (5.4J/cm2). Sham RB-PDAT will simulate RB-PDAT using saline drops and pen light covered with a green filter. Both groups will receive standard antimicrobial treatment: amphotericin B 0.15% if fungal keratitis or biguanide 0.02% if acanthamoeba keratitis. The study participant will have 6 or 7 visits (day 0 and/or 1, day 2, week 3, month 3, month 6 and month 12), in which ophthalmological exams will be performed, such as slit lamp examination, best spectacle corrected visual acuity (BSCVA), intraocular pressure, Pentacam, anterior segment optical coherence tomography, clinical photography and confocal microscopy</p> <p>Results: 7 patients with infectious keratitis were screened in the Brazilian setting. Among them, 2 female patients with acanthamoeba keratitis and 2 male patients with fungal keratitis were included. Both patients with acanthamoeba keratitis had a history of soft contact lens wear and both patients with fungal keratitis had a previous ocular trauma during work on the affected eye. All of the patients initiated the antimicrobial treatment and were randomized for sham RB-PDAT or RB-PDAT. One of the patients with fungal keratitis completed the 3-week visit and had improvement of the infiltrate and BSCVA (initial: 20/50, 3-week: 20/20)</p> <p>Conclusion: Corneal crosslinking has been shown to be beneficial for infectious keratitis on in vitro and pilot studies and may be an alternative as adjuvant therapy for this severe disease. This is the first randomized, double-blind, sham-controlled clinical trial investigating the effects of RB-PDAT as an adjuvant in the treatment of fungal and acanthamoeba keratitis</p> <p>Keywords: corneal cross-linking, keratitis, acanthamoeba, fungi</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: ORAL RIBOFLAVIN AND SUNLIGHT EXPOSURE IN THE TREATMENT OF PATIENTS WITH MODERATE TO SEVERE KERATOCONUS AND THIN CORNEA</p> <p>Author and Co-authors: Edilana Sa Campelo¹, Natalia Ramalho¹, Isabela Mota¹, Eron Gurgel¹, Camilla Collier¹, Jose Alvaro Gomes², Bruna Ventura¹, Walton Nose² ¹Altino Ventura Foundation (FAV) ²Federal University of Sao Paulo (UNIFESP)</p> <p>Purpose: To evaluate the use of oral riboflavin (vitamin B2) with sunlight exposure in the treatment of patients with moderate to severe keratoconus (KCN) and thin cornea.</p> <p>Methods: This interventional study evaluated patients with progressive and non-mild KCN with stromal thickness thinner than 400 micra, at FAV, Recife. The research was approved by FAV and UNIFESP IRB (number 4256901). Patients with B2 deficiency received supplementation before enrollment. Patients were instructed to ingest 60 mg/day of B2 and, 2 hours later, to be exposed to sunlight for 30 minutes/day without sunglasses for 3 months. All subjects underwent complete ophthalmological examination, corneal topography, and corneal OCT pre-, 6 and 12-months post-treatment (MPT).</p> <p>Results: Thirty-three patients (64 eyes, 19 males) with the mean [SD] age of 18.5 [4.0] years (11-31 years) were evaluated. Three patients had B2 deficiency (below 137 mg/L). Ten patients had moderate, 19 had advanced, and 35 had severe KCN. Visual outcomes were as follow (pre-, 6 MPT, and 12 MPT, respectively): Corrected distance visual acuity was .7 [.5], .8 [.5], and .9 [.6] logMAR, Topography astigmatism was 7.6 [3.4] D, 6.6 [2.7] D, and 8.7 [10.5] D, Steep SIM-K was 56.9 [6.3] D, 54.9 [6.3] D, and 56.9 [5.7] D, Steep central K was 60.5 [8.4] D, 58.1 [6.3] D, and 59.0 [7.5] D. Thinnest corneal thickness was 389 [47.5] micra, 406 [28.9] micra, and 390 [40.1] micra, Thinnest epithelium was 39.4 [6.5] micra, 39.0 [7.0] micra, and 40.9 [4.1] micra, Thinnest corneal stromal thickness was 359 [37.2] micra, 365 [24.2] micra, and 357 [30.9] micra. Only Steep SIM-K were statistically significant (p - .02). Eight eyes had KCN progression at 6 MPT and 16 eyes after 12 MPT. All of them were managed with individualized therapy [crosslinking (12 eyes), 200 mg/day oral B2 (10 eyes), corneal transplantation (2 eyes)]. Forty eyes remained stable after 1 year of follow-up.</p> <p>Conclusion: Topographic and pachymetric parameters remained stable 1 year after the use of oral riboflavin and sunlight exposure in 40/64 patients with moderate to severe keratoconus and thin cornea. Financial support: FAV</p> <p>Keywords: Severe Keratoconus; Thin cornea; Cornea topography; Oral Riboflavin</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Candida species in fungal keratitis: molecular characterization, antifungal susceptibility, biofilm formation, and clinical aspects</p> <p>Author and Co-authors: Fernanda M. Bezerra, M.D , Talita T. Rocchetti, Ph.D , Soraia L. Lima, MSc , Maria Cecília Z. Yu, MSc , Daniel A. da Matta, Ph.D , Ana Luisa Höfling-Lima, M.D, Ph.D , Analy S. A. Melo, Ph.D , Lauro A. de Oliveira, M.D, Ph.D</p> <p>Purpose: The study aimed to evaluate the clinical aspects, molecular characterization, biofilm formation, and antifungal susceptibility profile of Candida species isolated from fungal keratitis.</p> <p>Methods: Thirteen Candida isolates from 13 patients diagnosed with Candida keratitis were retrieved and grown in pure culture. Molecular species identification was performed by micromorphology analysis and ITS-rDNA sequencing. The broth microdilution method tested the minimum inhibitory concentration (MIC) of four antifungal drugs (fluconazole, amphotericin B, voriconazole, and anidulafungin). The biofilms were cultured and incubated with antifungal drugs for 24 hours. The XTT reduction assay measured the biofilm activity. Biofilm MICs were calculated based on a 50% reduction in metabolic activity compared with the activity of the drug-free control.</p> <p>Results: Among isolates, two were C.albicans, 10 C. parapsilosis (sensu stricto), and one C. orthopsilosis. All isolates were classified as susceptible or intermediate to all four antifungal drugs. Four isolates were very low biofilm producers (30%). Nine isolates were biofilm producers, and all biofilms samples were unsusceptible to all drugs tested. Previous ocular surgery was the most common underlying condition for fungal keratitis (84.6%), and C. parapsilosis was the most frequent Candida species (76.9%). Four patients (30.7%) needed keratoplasty, whereas two (15.3%) required evisceration.</p> <p>Conclusion: The biofilm formation ability of Candida isolates decreased antifungal susceptibility compared with planktonic cells. Despite in vitro antifungal susceptibility, almost half of patients were unresponsive to clinical treatment and needed surgery.</p> <p>Keywords: cornea, Candida, biofilms, keratitis, antifungal agents</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Fastpaper</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Interventional clinical protocol to evaluate the therapeutic efficacy of 50% autologous serum eye drops in the treatment of corneal epithelial defect in inflammatory diseases of the ocular surface</p> <p>Author and Co-authors: Ítalo Pena de Oliveira Eliseo Joji Sekiya Flavio Eduardo Hirai José Álvaro Pereira Gomes</p> <p>Purpose: The ocular surface functions as an ecosystem, and its homeostasis is related to the integrity and correct functioning of the various structures. Various conditions can imbalance this environment, resulting in inflammation of the ocular surface and loss of epithelial integrity. New treatments, such as the use of blood products, have emerged as possible allies in the management of ocular surface pathologies, with the benefit of providing epitheliotropic factors, vitamins and antimicrobial substances. Autologous blood eye drops have been tested in the treatment of various ocular pathologies, with favorable results for their use. The purpose of this clinical protocol is to evaluate the therapeutic response to the use of autologous blood in patients with corneal epithelial defects.</p> <p>Methods: This is an interventional clinical study. Participants eligible for this study are those with surface diseases such as moderate to severe non-Sjögren's dry eye, Sjögren's syndrome, Stevens-Johnson Syndrome, graft-versus-host disease, and neurotrophic keratitis, who have not responded to treatment with lubricating eye drops for at least 14 days, absence of active infection on the ocular surface. The intervention involves the use of ASD (autologous serum drop), which will be prepared from the patient's own blood in partnership Hemocentro São Lucas. The protocol for producing ASD follows established guidelines, including blood collection, processing, serological testing, and microbiological assessment to ensure safety. Data collection will include a range of ophthalmological assessments at baseline and at various follow-up intervals. The primary outcome measure is the improvement of the epithelial defect, measured using different parameters. Secondary outcomes include changes in ocular symptoms, tear film break-up time, Oxford Score, confocal microscopy results, metalloproteinase dosage, ocular surface assessment with IDRA®. The study plans to include 40 participants. Serious adverse events, particularly corneal infections, will be closely monitored, and participants will receive prompt medical attention if needed.</p> <p>Results: Recruitment starts in Oct/23</p> <p>Conclusion: in progr</p> <p>Keywords: autohemotherapy, corneal epithelium, ophthalmic solutions, keratitis, cornea</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Inflammatory response in patients diagnosed with Acanthamoeba keratitis</p> <p>Author and Co-authors: Larissa Fagundes Pinto, Mylena Cristina de Souza Barsch, Karina Ramalho Bortoluci, Mauro Silveira de Queiroz Campos, Denise de Freitas</p> <p>Purpose: Acanthamoeba is widely distributed in nature, suggesting that humans are likely to be exposed to this protozoan at some point in their lives, having 50 to 100% of the population specific serum antibodies to Acanthamoeba antigens. Some parts of the eye are immunoprivileged and little is known about the immune responses that develop in Acanthamoeba keratitis (AK). For this reason, this study aims to evaluate in vivo activated and developed inflammatory responses during the course of AK, including the production of IgA and investigate in vitro response and activation of innate immunity inflammatory cells when challenged by Acanthamoeba isolates.</p> <p>Methods: For that, healthy donors and patients diagnosed with AK will be recruited. Blood and tears will be collected from participants to measure levels of lacrimal secretory cytokines and IgA using Luminex multiplex immunoassay and enzyme-linked immunosorbent assay (ELISA), respectively. Neutrophils and monocytes from venous blood will be challenged with Acanthamoeba clinical isolates. Infection and survival rate of inflammatory cells and Acanthamoeba isolates will be evaluated in vitro as well as inflammatory mediators.</p> <p>Results: To date, four participants have been recruited (two donors and two AK patients). Preliminary data obtained with a buffy coat and THP-1 cells revealed that human cells are able to internalize and kill Acanthamoeba polyphaga (ATCC 30461) cysts and trophozoites. Moreover, infection with A. polyphaga resulted in the inflammasomes assembly, evaluated by ASC (Apoptosis-associated speck-like protein containing a CARD) punctas formation and cell death, thus suggesting an inflammasome mediated cytotoxic effect, which will be confirmed in patient samples.</p> <p>Conclusion: To be concluded.</p> <p>Keywords: Acanthamoeba keratitis, phagocytes, immunoglobulins, inflammation, cytokines.</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Corneal Confocal Microscopy Findings in Patients with Primary Sjögren's Syndrome and Small Fiber Neuropathy</p> <p>Author and Co-authors: Laura Caldas dos Santos, Virginia Fernandes Moça Trevisani, Denise de Freitas</p> <p>Purpose: The purpose of this study is to evaluate the use of Corneal Confocal Microscopy (CCM) for the diagnosis of Small Fiber Neuropathy (SFN) in patients with Sjögren (SS) by assessing corneal nerve fibers and correlating those findings to the changes found in skin biopsies.</p> <p>Methods: 50 patients with SS over 18 years of age and with symptoms of SFN are being included in this study. Patients with diabetes mellitus type 2, amyloidosis and contact lens users are being excluded. This cross-sectional study is being conducted at the Ophthalmology Outpatient Clinic of Hospital São Paulo - UNIFESP. An informed consent form is being presented and explained by the study team to the patient. The SFN Screening List questionnaire is being applied to the patients with SS to help selecting those with suspected SFN. The suspected patients will undergo skin biopsy for confirmation of the disease. Corneal tactile sensitivity will be measured with the Cochet-Bonnet esthesiometer. Corneal confocal microscopy will be performed with the Heidelberg III Rostock Corneal Tomography. And it will seek to observe changes due to neuropathy and then compare the results of these findings to those found in the biopsy results using routine staining (hematoxylin-eosin) and immunohistochemical examination (PGP 9.5) As control group there will be other patients with SS, who during the application of the questionnaire did not raise suspicion of SFN. These patients will also undergo corneal confocal microscopy to look for changes related to SFN. The patients with suspected changes will be submitted to corneal sensitivity testing. In these patients, skin biopsy will also be indicated to investigate the presence of SFN-related changes.</p> <p>Results: Research is in data collection phase. No results available.</p> <p>Conclusion: Research is in data collection phase. No results available.</p> <p>Keywords: Sjogren, Corneal Confocal Microscopy, Small Fiber Neuropathy</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Prevalence and Risk Factors for Dry Eye Disease: the Sao Paulo Dry Eye Study</p> <p>Author and Co-authors: Author and Co-authors: Leonardo Guedes C. Marculino, Nicolle Queiroz-Hazarbassanov, Flavio Hirai, Tais Hitomi Wakamatsu, Jose Arthur P. Milhomens Filho Advisor: Jose Alvaro Pereira Gomes , Co-Advisor: Rossen Mihaylov Hazarbassanov</p> <p>Purpose: To estimate the prevalence and risk factors of dry eye disease symptoms and clinical diagnoses in Sao Paulo city, state of Sao Paulo, Brazil.</p> <p>Methods: A total of 582 participants over 18 years old, living in the east zone of Sao Paulo city responded to a short questionnaire. Dry eye disease was on that is defined by the presence of severe symptoms or previous clinical diagnosis of dry eye disease by an ophthalmologist. The association between dry eye disease and possible risk factors was assessed.</p> <p>Results: Overall dry eye disease severe symptoms and/ or clinical diagnoses prevalence was calculated as 24.4% for both sexes. Women presented a higher frequency of severe symptoms of dry eye disease (16.07%) than men (8.48%, $p=0.0244$), as well as the composite of severe symptoms or diagnosed dry eye disease, presented by 26.86% of women and 18.18% of men ($p=0.0366$). In women, ages between 55 to 75 years old were associated with dry eye disease severe symptoms (OR=3.11, 95%CI 1.56-6.23, $p=0.001$) and diagnosed dry eye disease (OR=2.02, 95% CI 1.04-3.93, $p=0.037$). Hypertension was significantly associated with dry eye disease symptoms (OR=1.98, 95% CI 1.14-3.43, $p=0.015$) and diagnoses (OR=3.54, 95% CI 1.92-6.53, $p=0.0001$) in women. Eye drops use was associated with severe symptoms of dry eye disease and diagnosed dry eye disease in both women and men ($p?0.01$).</p> <p>Conclusion: Dry eye disease prevalence in Sao Paulo city is higher in women than in men. Age and hypertension were stronger risk factors of dry eye disease for women, while eye drops use was a significant indicator of dry eye disease for both sexes.</p> <p>Keywords: Dry eye syndromes; ocular surface; Surveys and questionnaires</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Keratoconus and Corneal Ectasia with relatively low keratometry</p> <p>Author and Co-authors: Louise Pellegrino G. Esporcatte, Marcella Q. Salomão, Bernardo T. Lopes, Nelson Sena Jr, Aydano P. Machado, Renato Ambrósio Jr</p> <p>Purpose: The study aims to demonstrate clinical corneal ectasia and keratoconus cases in patients with relatively low keratometry and estimate such incidence.</p> <p>Methods: In a retrospective, analytical, and non-interventionist study comprised of 1054 patients were divided into three groups: 736 normal and 318 keratoconus patients divided into 90 low keratometry (K) KC and 228 High K KC. All patients underwent the exams of Pentacam and Corvis ST (Oculus, Wetzlar, Germany). We considered low keratometry based on the maximum zone mean 3 mm keratometry (K max zona mean 3mm) lower than 47.6D, Kmin'<' 47.0, and Kmax> 48.5, which agrees with the classic Rabinowitz criterion. Comparisons between more than two groups with quantitative data and non-parametric distribution were done using the Dunn test for the Kruskal-Wallis test. The confidence interval was 95%, and the accepted error margin was 5%. So, the p-value was considered significant if '<'0.05.</p> <p>Results: Ninety (28.30%) of the 318 KC group have ectasia with low Kmax, the mean Kmax was 46.15 ± 1.02. From the other patients of the KC group, 228 (71.7%) have ectasia with high Kmax, and the mean Kmax was 52.98 ± 4.55. The average age in the low Kmax KC group is 37.49 years (range 13 to 78), and in the high Kmax KC group is 34.22 years (range 12 to 80). The select biomechanics parameters in the low Kmax KC group are BAD-D 3.79 ± 1.62, TBI 0.93 ± 0.17, CBI 0.58 ± 0.43, PRFI 0.78 ± 0.25, and SPA1 86.16 ± 19.62, and in the high Kmax KC group are BAD-D 8.5 ± 3.73, TBI 0.99 ± 0.05, CBI 0.94 ± 0.19, PRFI 0.97 ± 0.1, and SPA1 67.88 ± 19.37. From the patients in the Low K KC group, 40% have CBI lower than 0.5 and 36.6% lower than 0.3, 17.7% have PRFI lower than 0.5 and 2.2% lower than 0.15, and 4.4% have TBI lower than 0.5 and no patient have TBI lower than 0.3. The main tomographic and biomechanics parameters in comparing the normal group vs. High K KC, normal vs. low K KC, and Low K KC vs. High K KC groups presented statistical significance in the Dunn test for Kruskal-Wallis.</p> <p>Conclusion: Clinical corneal ectasia and keratoconus can be associated with relatively low keratometry, having a Kmax zona mean 3mm lower than 47.6D. Low central keratometry does not exclude the patient from having a steep cornea.</p> <p>Keywords: Keratoconus; Cornea ectasia; Low keratometry keratoconus; Corneal biomechanics</p>
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(CO) CORNEA AND EXTERNAL DISEASE

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INFLAMMATION

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Paper

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(BE) OCULAR BIOENGINEERING
(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

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Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

60. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Lucas Baldissera Tochetto PG1

e-mail: l.tochetto@unifesp.br

Advisor: José Álvaro Pereira Gomes

CEP Number: 59689622.0.0000.5505

5. ABSTRACT (REQUIRED):

Title: Comparison between Intrastromal Injection of autologous blood and C3F8 Injection for the treatment of Severe Acute Corneal Hydrops

Author and Co-authors: Lucas Baldissera Tochetto, Ítalo Pena de Oliveira, Tais Hitomi Wakamatsu, Flavio Eduardo Hirai, José Álvaro Pereira Gomes

Purpose: The present study aimed to evaluate the efficacy and safety of the application of autologous blood in intrastromal region of the cornea and intracameral C3F8 Injection in patients with severe corneal hydrops, making a comparison of resolution time and improvement in corrected visual acuity.

Methods: The 70 patients with eyes affected by the acute condition of corneal hydrops who received routine treatment, including the conservative form and medication (eyedrops of hypertonic saline solution, antiglaucomatous mediations, and lubricant medications), will be randomly divided into two groups. One group will consist of 35 patients treated with autologous blood intrastromal injection, and the other will consist of 35 patients treated with C3F8 intracameral injection. Both groups will receive only one treatment application and will be examined before the intervention, on week 1, month 1, and 3 months postoperative. The primary outcome will be time to resolution, defined as the time (in days) between the procedure and resolution of hydrops. Resolution is defined as the complete disappearance of epithelial cysts and stromal edema, with the appearance of a scar in the corneal stroma. It will be evaluated by slit lamp biomicroscopy and ASOCT imaging.

Results: In progress.

Conclusion: In progress.

Keywords: acute corneal hydrops, corneal edema, autologous blood injection, keratoconus, therapeutic options

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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Ocular, oral and gut microbiomes characterization of patients with Stevens-Johnson Syndrome, Sjogren Syndrome and healthy patients Author and Co-authors: Luciana Frizon, Talita Trevizani Rocchetti, Ana Luisa Hofling-Lima, José Álvaro Pereira Gomes Purpose: The human body lives in a symbiotic relationship with a variety of different microbes. Dysbiotic microbiome appears to be intimately connected to many diseases. Until this moment there is no available information regarding Stevens-Johnson syndrome (SJS) microbiome and the comparison with Sjogren's syndrome (SS). This study aims to characterize the ocular surface, oral, and gut microbiomes in patients with SJS and individuals with SS by the Next Generation Sequencing method, and to compare these profiles with patients with healthy microbiomes Methods: Methods: Sterile swabs were utilized to collect specimens from the inferior conjunctiva of the right eye, oral mucosa, and fecal samples from a total of 9 SJS patients, 3 patients diagnosed with primary SS and 3 healthy controls. The severity of ocular surface disease and dry eye indices were graded. Results: Results: The mean age of individuals with SS was 56.33 years, 37.44 years for SJS and 39.33 years for the control group. A total of 100% of the SS group were female, as 66.6% in the SJS group and control group. Regarding the 14 gut microbiomes already processed (3 SS, 8 SJS and 3 controls), 100% of patients from both disease groups had gut dysbiosis. All SS and SJS patients had a lower-than-normal Firmicutes/Bacteroidetes ratio with irregular phylum distribution. All SS patients and 77% of SJS patients had absence of the anti-inflammatory bacterium Akkermansia with the presence of pathobiont bacteria, and None SS or SJS patient had pathogenic bacteria. Regarding the 12 oral microbiomes already processed (3 SS, 6 SJS and 3 controls) all patients from both groups had irregular phylum distribution. A total of 2 SJS patients had pathogenic bacteria (Haemophilus aegyptius and Granulicatella elegans), and one SJS patient had a pathobiont bacterium. In the evaluation of fungi microbiome, 66% of SS patients had Candida albicans in their flora. Until this moment, 14 ocular microbiomes were processed and will be analyzed. Conclusion: Conclusions: We believe this valuable study will provide information that will be important to guide treatment with prebiotics and probiotics to restore the gut ecosystem and bring back a healthy ocular surface. Keywords: microbiome, SS, SJS, dry eye</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECION</p>	<p>5. ABSTRACT (REQUIRED): Title: CORNEAL TRANSPLANTATION IN PATIENTS WITH ACANTHAMOEBA KERATITIS</p> <p>Author and Co-authors: Luciana Lopes Rocha, Renata Cavalcanti Portela Boro, Myrna Serapião dos Santos, Itala de Moraes Vieira Gatti, Maria Cecília Zorat-Yu, Ana Luisa Hofling-Lima, Denise de Freitas</p> <p>Purpose: To evaluate the results involving corneal transplantation by Acanthamoeba</p> <p>Methods: Transversal, observational, retrospective study analyzing patients with Acanthamoeba keratitis who underwent therapeutic keratoplasty until August 2023. The study was conducted at the Department of Ophthalmology and Visual Sciences of Escola Paulista de Medicina, Hospital São Paulo, UNIFESP using data from the patients' records. Additional information about gender, age, clinical, post-operative visual acuity were also collected. Incompleted electronic medical records were excluded</p> <p>Results: We studied 65 eyes from 63 patients. Most patients (57%) were female and the average age was 39 years (range 17-72 years). 97% were contact lens wearers and of these (74%) were soft contact lenses. The average time to diagnosis was 9 weeks (range 1-28 weeks). The first culture was positive for Acanthamoeba in 52% of cases. The mean treatment time was 11 months (range 1-30 months). In 45% of cases, corneal transplantation was performed due to corneal melting or perforation. Most common post-operative complication was glaucoma (65%), endophthalmitis occurred in two patients, the first and second case described in Brazil. The recurrence of infection in the corneal transplant happened in 17%. The final visual acuity (VA) better than 20/40 was present in 34% of the patients. Final VA better 20/40 was found in a statistically significant way in patients who did not have a recurrence of the infection (p-value = 0.03180), who did not present pre- and post-operative complications (p-value = 0.00405). And in relation to complications alone, the rate of final VA better than 20/40 is much higher when there was no corneal perforation (40%) than when there was (10%) (p-value = 0.00892)</p> <p>Conclusion: In conclusion, the use of contact lens, mainly soft, is the main risk factor. The clinical diagnosis of AK is still delayed. The preoperative treatment time was long, which justified the need for therapeutic corneal transplantation. Corneal transplantation may be a treatment option for infections that are unresponsive to medical treatment and have better response when did not have recurrence, did not have complications, mainly melting or perforation</p> <p>Keywords: corneal transplantation; Acanthamoeba; keratitis</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(CO) CORNEA AND EXTERNAL DISEASE</p>	<p>63. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Ludmila Nascimento Silva PG1</p> <p>e-mail: ludynps@yahoo.com.br</p> <p>Advisor: Luciene Barbosa de Sousa</p> <p>CEP Number: 59847622.0.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Analysis of riboflavin levels in aqueous humor and human corneas after oral absorption.</p> <p>Author and Co-authors: Ludmila Nascimento P Silva, Lauro Augusto de Oliveira, Luciene Barbosa de Sousa,</p> <p>Purpose: This study evaluates riboflavin concentration in corneal tissue after high doses of oral vitamin B2 consumed before corneal transplant. By determining whether enough dietary riboflavin accumulates in human corneal tissue and whether the effects of direct UV-A sunlight are sufficient and comparable to commercially available corneal CXL therapy, we can find an alternative treatment for keratoconus progression and post-refractive ectasia.</p> <p>Methods: This therapeutic intervention is a prospective, randomized, and comparative study. Thirty patients will be evaluated with a diagnosis of keratoconus, of both genders, from the Department of Ophthalmology and Visual Sciences, Paulista Medical School, Federal University of São Paulo, who are on the waiting list for corneal transplantation, with an indication for penetrating. According to the randomization list, participants will be divided into two groups: Group 1: 15 patients with keratoconus who will undergo a daily intake of 400 mg for 10 to 20 days before corneal transplantation. Group 2: 15 patients with keratoconus that will not receive riboflavin. During corneal transplantation, aspiration of 1ml of aqueous humor of the patient will be performed, which, together with the corneal button of the trepanned host, will be sent for detection and dosage of riboflavin through Elisa.</p> <p>Results: Eight individuals were not taking oral riboflavin compared to 10 individuals taking the medication. The mean (SD) concentration of riboflavin in the cornea in the group taking oral riboflavin was 44,317.10 (33,509.95) ng/ml compared to 28,482.25 (12,561.76) ng/ml in the group NOT taking oral riboflavin (p=0.182). The mean (SD) concentration of riboflavin in the aqueous humor in the group taking oral riboflavin was 12,021.17 (17,515.47) ng/ml compared to 3,391.75 (2,092.12) ng/ml in the group NOT taking oral riboflavin (p=0.020).</p> <p>Conclusion: This study is in progress and is currently not showing final results.</p> <p>Keywords: Keratoconus; crosslinking; oral riboflavin; elisa</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>Paper</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Cyst density and morphological assessment in patients with Acanthamoeba spp. Keratitis using In Vivo Confocal Microscopy</p> <p>Author and Co-authors: Luiz Guilherme Ito da Cruz, Tais Hitomi Wakamatsu, Denise de Freitas</p> <p>Purpose: The incorrect use of contact lenses (CL) is a predisposing factor for keratitis caused by Acanthamoeba spp., a protozoan commonly found in bodies of water. In Vivo Confocal Microscopy (IVCM) enables the identification of Acanthamoeba in keratitis, presenting itself as hyper-reflective ovoid structures. This study aims to evaluate cystic morphology and density through using IVCM and correlate these findings with clinical assessment throughout the treatment.</p> <p>Methods: 30 patients aged between 18 and 80 years, without previous surgery or complications, and with Acanthamoeba keratitis confirmed by IVCM will be evaluated. The Heidelberg Retina Tomograph 3 (HRT3) with Rostock Cornea module was used to evaluate corneal morphological changes and quantify the cysts through a manual process at the densest scans.</p> <p>Results: 36 eyes from 30 patients were included in this study. The mean age of this group was 35.5 years (sd 10.6 yrs) and 17 were male (56 %). Among these patients, 16 tested negative for Acanthamoeba spp. in the scraping smear examination, while 10 tested positive. 22 patients used soft contact lens and 6 used rigid contact lens, 3 of whom used scleral contact lenses. The mean central corneal pachymetry by IVCM was 493 micrometers (sd 70.8), and the mean cyst involvement in the cornea was 25.07 percent (sd 30.89). 12 eyes had light cyst density (less than 10 cysts/scan), 13 with mild cyst density (11-50 cysts/scan) and 10 eyes with severe cyst density (more than 51 cysts/scan). The cysts density and depth correlated with keratitis status, with more severe keratitis exhibiting a higher number of cysts that penetrated deeper into the cornea.</p> <p>Conclusion: IVCM proves to be a valuable tool for the detection and assessment of the severity for Acanthamoeba keratitis.</p> <p>Keywords: keratitis; acanthamoeba; confocal microscopy</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Macromolecular changes in the extracellular matrix of human corneas with keratoconus and after crosslinking with açai (Euterpe oleracea) extract: an ex vivo and in vitro study</p> <p>Author and Co-authors: Murilo B Peres, Larissa R da Rosa, Priscila C Critovam, Renan P Cavaleiro, Yara M C S Michelacci, Mauro S Q Campos</p> <p>Purpose: To analyze changes in the composition of the extracellular matrix of keratoconus cornea(KC) stroma compared to normal corneas(NC) and the in vitro effects of açai extract on corneal cells and matrix.</p> <p>Methods: 12 KC from penetrating corneal transplantation and 8 NC from an eye bank were selected. We performed macromolecule extraction, Western blotting(WB), protein dosing, ELISA and immunofluorescence. The proteoglycans (PGs), decorin(DC) and lumican(LC), keratan sulfate(KS) glycosaminoglycan, metalloproteases MMP2, MMP9 and MMP13 and cathepsins B and L were analyzed. To analyze the action of açai extract, type I collagen discs were incubated overnight with different concentrations of açai extract, and BSS for control. After washing and incubation with collagenase, we measured the disc weight variation at different times. NC and KC keratocytes were cultured with açai extract in various concentrations (control, 2%, 4%, 8%) and exposure time (30 min, 1h, 2h) to assess cell viability (MTT assay). Then, a concentration of 4% for 2h was used and the cell viability was compared with riboflavin and ultraviolet light for 30 min. We also evaluated cell cultures with immunofluorescence and confocal microscopy.</p> <p>Results: DC in KC has a higher molecular weight. No differences were observed in LC and KS in both. MMP13 was seen in KC and absent in NC. MMP2, MMP9, Cathepsin B and L were not detected in any of the studied samples. The average of macromolecules extracted per mg of wet corneal tissue in the NC and KC respectively was 4,093±2.38ug and 1.53±1.35(p=0.02) for protein, 0.1±0.03 and 0.08±0.06(p=0.33) for DC, 0.1±0.03 and 0.08±0.05 for LC(p=0.3), 3.18±1.86ug and 2.5±1.34ug for KS(p=0.39). The average PGs extracted per ug of protein in the NC and KC respectively were 0.03±0.01 and 0.07±0.05 (p=0.03) for DC, 0.03±0.01 and 0.08±0.05 for LC(p=0.00), 1.24±1.16ug and 2.51±2.02ug for KS(p=0.09). Immunofluorescence distribution of PGs were similar in both groups. Collagen discs incubated with higher concentrations of açai extract became more resistant to collagenase action. The MTT assay results indicate that keratocytes are more sensitive to the açai extract in the concentration of 8% for 2h, mainly when compared to control (p'<0,05). We observed that the treatment with riboflavin was more toxic to keratocytes than the açai extract in relation to the control and to the extract itself (p'<0,05). The analysis of immunofluorescence with confocal microscopy of keratocyte cultures showed that KCs appear to have a cytoskeleton more organized in bundles than in a network, and this network appears to be rectified after CXL with açai extract. We find PGs inside the cells and no extracellular matrix.</p> <p>Conclusion: The presence of DC, LC and KS in the stroma of NC and KC was demonstrated both by quantitative (ELISA and protein dosing) and qualitative analysis (western blotting and immunofluorescence). The KC decorin is more glycosylated than NC (WB). There was loss of protein in KC, while DC, LC and KS were preserved. MMP13 was detected by western blotting only in KC. Açai extract promotes crosslinking in in vitro collagen. Keratocytes are more sensitive to the açai extract on concentration above 4%. Açai extract at concentration up to 4% for</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Adherence of Acanthamoeba spp. isolates to contact lenses after electroporation treatment</p> <p>Author and Co-authors: Prof. Dr. Mauro Silveira de Queiroz Campos Prof. Dr. Denise de Freitas Raphael Barcelos Palloma Santiago Prates Pessoa Larissa Fagundes Pinto</p> <p>Purpose: To evaluate whether an electrochemical method (electroporation) is capable of interfering with the adherence of trophozoites and cysts of Acanthamoeba polyphaga to the surface of different contact lens (CL).</p> <p>Methods: To examine through Scanning Electron Microscopy the effect of the electrochemical method on the wall/membrane of the isolate A. polyphaga isolate and its adherence to the surface of the CL, To examine by Atomic Force Microscopy the level of adherence strength of the A. polyphaga isolate to the surface of the CL, before and after it has been electroporated, and also the effect of the electrochemical method on the wall/membrane of the isolate in question. The electrochemical method (electroporation) consists of the application of electric fields that temporarily alter the permeability and conductivity of the plasma membrane of biological cells, allowing the permeation of molecules and possibly generating definitive damage to the membrane/wall of Acanthamoeba trophozoites and cysts, which would eliminate these species in a short period of time. This study to be carried out at the CEPA (Center for Advanced Research on Acanthamoeba) of the Ophthalmology Department of the Federal University of São Paulo (UNIFESP) in agreement with the National Nanotechnology Laboratory (LNNano).</p> <p>Results: The experiments, results, discussion and conclusion are ongoing.</p> <p>Conclusion: : Although previous studies have demonstrated the ability of Acanthamoeba to adhere to the surface of LC, little is known about their adhesion properties at the nano-molecular level, in particular the specific receptors used by Acanthamoeba isolates to adhere to the surface of CL. It is hoped that this study will lead to a greater understanding and elucidation of the molecular mechanisms of adherence performed by the ATCC 30461 isolate (Acanthamoeba polyphaga), in adherence with different models of AC and after having undergone the electrochemical process, elucidating the ideal mechanism for dismantling, in particular, the cell wall of the cysts of this isolate, which, due to its configuration as a form of resistance, may be the most viable path to more effective sanitization methods for preventing contamination of CL.</p> <p>Keywords: Acanthamoeba; contact lenses; adherence; electroporation.</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: KERATOPROSTHESIS OF BRAZIL (KOBRA): PRELIMINARY RESULTS OF THE FIRST 3 HUMAN CASES.</p> <p>Author and Co-authors: Otavio de Azevedo Magalhães, Italo Pena de Oliveira, José Alvaro Pereira Gomes, Jarbas Caiado de Castro Neto, Paulo Schor.</p> <p>Purpose: To evaluate the clinical performance of a novel keratoprosthesis (KPro) named KoBra in patients with corneal blindness.</p> <p>Methods: Two-piece 3D-printed titanium-powder and polymethyl methacrylate (PMMA) KPro were implanted unilaterally in 3 patients with corneal disease not amenable to standard corneal transplantation using an autologous full-thickness corneal graft as the KPro carrier. Patients were examined to evaluate retention and postoperative complications. Biomicroscopy and Anterior Segment Optical Coherence Tomography (AS-OCT) were performed throughout the experiment to evaluate the relationship between the KPro and the carrier graft.</p> <p>Results: All surgeries were performed without intraoperative complications, and the immediate postoperative period was uneventful except for one persistent epithelial defect that was managed with conjunctival flap and tarsorrhaphy. In all eyes the implanted KoBra integrated into the operated eyes and maintained clear optics without extrusion over a mean of 8.4 months. AS-OCT demonstrated the correct relationship of the device and carrier at the final follow-up.</p> <p>Conclusion: The first clinical analysis demonstrated a good outcome of the use of this new technology in patients not amenable to standard corneal transplantation. Longer follow-up and additional implantations are necessary to better assess the safety and efficacy of this device.</p> <p>Keywords: Keratoprosthesis; Kpro; KoBra; Artificial Cornea; Corneal transplantation.</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>ANGIOGENESIS</p>	<p>5. ABSTRACT (REQUIRED): Title: Retrospective Evaluation of Cyclophotocoagulation Procedure in Neovascular Glaucoma</p> <p>Author and Co-authors: Barbosa JP, Harckbart FG, Gusmão PF, Melo LAS</p> <p>Purpose: Evaluate the efficacy and safety of cyclophotocoagulation in patients with neovascular glaucoma.</p> <p>Methods: Methods: Retrospective analysis of data from the electronic medical record of patients who were treated with cyclophotocoagulation for neovascular glaucoma during the year 2022 with a six-month follow-up was performed. Data regarding the etiology of neovascular glaucoma, the previous use of acetazolamide, the number of ocular hypotensors and intraocular pressure before and after the procedure were assessed.</p> <p>Results: Results: A total of 66 eyes of 64 patients who were treated with cyclophotocoagulation for neovascular glaucoma during 2022 were included in this study. There were 35 (53.05%) cases of proliferative diabetic retinopathy and 26 (39.39%) cases of central retinal vein occlusion. During six months, three (4.54%) eyes lost post-operative follow-up. Among the cases that completed the follow-up, the mean initial intraocular pressure was 38.46 (\pm 12.28) mmHg and the initial number of ocular hypotensors was 2.19 (\pm0.61). A total of 48 (76.19%) patients were using acetazolamide before cyclophotocoagulation. The mean intraocular pressure was 24.91 (\pm 11.94) mmHg at the thirtieth postoperative day ($p < 0.0001$) and 17.14 (\pm 11.44) mmHg at the sixtieth postoperative day ($p < 0.0001$). Cyclophotocoagulation was indicated again in 20 (31.74%) eyes. After six months of follow-up, the number of ocular hypotensors was 1.60 (\pm 1.28) ($p = 0.0144$). Regarding safety, seven eyes had an initial visual acuity of no light perception. Among the remaining eyes, 21 (37.53%) of them evolved with no light perception visual acuity. No eye evolved to phthisis bulbi.</p> <p>Conclusion: Conclusion: Although transcleral cyclophotocoagulation is a well-known option for treating advanced glaucoma, its efficacy was insufficient in several eyes in our study, leading to procedure repetition. Beyond that, many eyes evolved to no light perception visual acuity, which could have been influenced by the initial severity of the neovascular glaucoma.</p> <p>Keywords: Glaucoma, Cyclophotocoagulation, Retinal Vein Occlusion, Diabetic Retinopathy</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Reading performance in glaucoma patients vs control patients</p> <p>Author and Co-authors: Ugor Tomaz Fernandes, André Hiroshi Bando, Mariana Chiba Ikeda, Tiago S. Prata, Augusto Paranhos Jr., Carolina P. B. Gracitelli</p> <p>Purpose: To evaluate visual reading patterns, including the Bivariate Contour Ellipse Area (BCEA), in the reading performance of patients with glaucoma comparing with patients without ocular diseases.</p> <p>Methods: This is a cross-sectional study including glaucoma and controls patients from glaucoma division from federal university of Sao Paulo. It will be collected clinical and demographic data and it will be done the complete ophthalmological exam, the Minnesota Low-Vision Reading Test (MNREAD) with eyetracking, automated visual field 24-2 and 10-2 in the SITA-Standard strategy, microperimetry and of all patients. The data will be statistically analyzed after its gathering.</p> <p>Results: This study is still in progress and the results will be presented soon. It is expected the association between the speed of reading and the glaucoma severity, the scotoma localization and the BCEA.</p> <p>Conclusion: The conclusion will be drawn after the analysis of the data. It is expected that, with the positive correlation of the reading performance with glaucoma severity and BCEA, we can understand better the variables influencing the reading performance, consequently, the life quality of the patient.</p> <p>Keywords: Glaucoma; Visual field; Microperimetry; Eyetracking; Bivariate Contour Ellipse Area</p>
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(GL) GLAUCOMA

3. THEME: (REQUIRED) Check one:

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(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
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FORMAT:

Abstract should contain:

Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

5. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Pedro de Faria Gusmão R2

e-mail: pedrofgusmao@hotmail.com

Advisor:

CEP Number: 4037003

5. ABSTRACT (REQUIRED):

Title: Retrospective Evaluation of Cyclophotocoagulation Procedure in Neovascular Glaucoma

Author and Co-authors: Gusmão PF, Barbosa JP, Harckbart FG, Melo LAS

Purpose: Evaluate de effectiveness of cyclophotocoagulation during six months of follow-up in patients with silicone oil-associated glaucoma.

Methods: Retrospective analysis of data from the eletronic medical record of patients that were treated with cyclophotocoagulation for silicone oil-associated glaucoma during the year of 2022, with a six-month follow-up. Data regarding the previous use of acetazolamide, number of ocular hypotensors and intraocular pressure before and after the procedure were assessed.

Results: A total of 22 eyes that were treated with cyclophotocoagulation for silicone oil-induced glaucoma during 2022 were included in this study. Two of those (9.09%) progressed with loss of sight (no light perception) and one (4.55%) with phthisis bulbi. Ten patients were using acetazolamide at time of cyclophotocoagulation (45.45%). Nine patients (40.91%) were submitted to another cyclophotodestructive procedure during the follow-up period. Excluding those patients (phthisis, loss of eyesight or which had been submitted to another procedure), we had a sample of 10 eyes. Analyzing those, the mean number of hypotensive eyedrop agents before procedure was 2.84, and at the end of follow-up period was of 2.30 (reduction of 0.50), the mean intraocular pressure was 29.38 mmHg, which evolved to 24.41 mmHg (4.97 mmHg reduction).

Conclusion: Although transcleral cyclophotocoagulation is a well-known option for treating advanced glaucoma, its effectiveness was insufficient in several eyes in our study, leading to procedure repetition. Beyond that, some eyes evolved to no light perception visual acuity, which could had been influenced by the initial severity of the glaucoma or by a complication of the procedure.

Keywords: silicon oil-induced glaucoma; cyclophotocoagulation

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(GL) GLAUCOMA</p>	<p>6. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Frederico Galvani Harckbart Carvalho R3</p> <p>e-mail: fredghc@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 4037004</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Retrospective Evaluation of Cyclophotocoagulation in Primary Open-Angle Glaucoma</p> <p>Author and Co-authors: Carvalho FGH, Barbosa JP, Gusmão PF, Melo LAS</p> <p>Purpose: Assess the efficacy of cyclophotocoagulation over a six-month period in individuals diagnosed with primary open-angle glaucoma.</p> <p>Methods: A retrospective analysis was conducted using electronic medical records of patients who underwent cyclophotocoagulation (conventional transscleral, micropulse or slow-coagulation) for primary open-angle glaucoma in the year of 2022, with a subsequent six-month follow-up period. Information regarding the severity of primary open-angle glaucoma, previous oral acetazolamide usage, the number of prescribed ocular hypotensive drugs, and intraocular pressure measurements before and after the procedure were examined. Inclusion criteria involved the availability of data on the hypotensive medications used and the intraocular pressure value before and after at least 90 days of the procedure.</p> <p>Results: A total of 24 eyes of 22 patients that were treated with cyclophotocoagulation for primary open-angle glaucoma during 2022 were included in this study. The mean preoperative intraocular pressure was 23.2 mmHg (\pm 6.8), with 19 (79.1%) of them using at least 3 hypotensive eye drops, and 7 (29.1%) also taking oral acetazolamide. At the last follow-up appointment, there was a reduction in the mean IOP to 17.5 mmHg (\pm 8.2), with at least 3 eye drops being used only in 13 (45.8%) patients. In total, 7 (29.1%) patients required a new procedure to reduce intraocular pressure within these initial 6 months, with 4 of them undergoing a new cycloablative procedure. None of the patients in this sample experienced a decline in visual acuity to "no light perception" nor developed phthisis bulbi.</p> <p>Conclusion: Cyclophotocoagulation is an efficient short-term treatment for advanced primary open-angle glaucoma, and this study reaffirms its effectiveness. There was shown significant reduction in intraocular pressure, as well in the number of hypotensive medications. While some patients required additional procedures within the initial six months, overall visual outcomes remained stable, with no cases of severe visual impairment or phthisis bulbi observed. Further research is needed to assess long-term efficacy and sustainability.</p> <p>Keywords: glaucoma; cyclophotocoagulation</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Efficacy of GATT (gonioscopy-assisted transluminal trabeculotomy) performed by glaucoma fellow at a training hospital</p> <p>Author and Co-authors: Wajsman, SZ, Martins, ILA, Melo Jr. LAS</p> <p>Purpose: The present study aims to evaluate the effectiveness of antiglaucoma surgery called GATT (gonioscopy-assisted transluminal trabeculotomy) combined or not with phacoemulsification (PHACO-GATT) performed by trainee glaucoma fellows at a teaching hospital.</p> <p>Methods: The study consists of a retrospective chart review of all GATT procedures (solo or combined) performed by glaucoma fellows in training at the Ophthalmology Department of UNIFESP/EPM teaching hospital between August 2022 and June 2023. The study population included all patients who underwent GATT surgery performed by fellows during the study period and had at least 90 days of follow-up for inclusion in IOP analysis. The patients were examined at 1 day, 7 days, 1 month, 3 months, 6 months, and 1 year after the procedure. At each visit, IOP (Goldman applanation tonometry) and slit-lamp examination were performed, and surgery success was assessed according to the established criteria. The number of medications taken was checked, and antiglaucoma drops were introduced when the success criteria were not fulfilled. Two criteria were established to assess the success of the surgery: a 20% decrease in IOP compared to preoperative levels or IOP \geq 18 mm Hg. Both criteria were reported as total success when they were met without medication or as qualified success when they were fulfilled with additional medical treatment. A failure was considered when high IOP was refractory to glaucoma medication, or additional surgical treatment was needed to obtain successful IOP levels. Data were analyzed using descriptive statistics and statistical tests</p> <p>Results: In progress</p> <p>Conclusion: In Progress</p> <p>Keywords: Glaucoma, MIGS, Surgery, GATT</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(GL) GLAUCOMA</p>	<p>8. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Isabella Loiola Araujo Martins R4</p> <p>e-mail: isabellaloiola15@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 04041-060</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: The Safety of GATT (gonioscopy-assisted transluminal trabeculotomy) performed by glaucoma fellow at a training hospital</p> <p>Author and Co-authors: Wajsman, SZ, Martins, ILA, Melo Jr., LAS</p> <p>Purpose: The aim of the present study was to retrospectively evaluate the safety of antiglaucoma surgery called GATT (gonioscopy-assisted transluminal trabeculotomy) combined or not with phacoemulsification (PHACO-GATT) performed by trainee glaucoma fellows at a teaching hospital.</p> <p>Methods: The study consists of a retrospective chart review of all GATT procedures (solo or combined) performed by glaucoma fellows in training at the Ophthalmology Department of UNIFESP/EPM teaching hospital between August 2022 and June 2023. The study population included all patients who underwent GATT surgery performed by fellows during the study period and had at least 90 days of follow-up for inclusion in IOP analysis. The patients were examined at 1 day, 7 days, 1 month, 3 months, 6 months and 1 year after the procedure. At each visit, IOP (Goldman applanation tonometry) and slit-lamp examination were performed, possible complications (hyphema, transient hypotony, IOP spikes, and corneal edema) were checked and surgery success was assessed according to the established criteria. The number of medications taken was checked, and antiglaucoma drops were introduced when the success criteria were not fulfilled. Safety was assessed in terms of the incidence of postoperative complications. Each complication was analyzed separately. Data were analyzed using descriptive statistics and statistical tests</p> <p>Results: Results are in progress</p> <p>Conclusion: -</p> <p>Keywords: GATT; MIGS; angle surgery; glaucoma surgery; gonioscopy-assisted transluminal trabeculotomy; minimally invasive glaucoma surgery</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'</p> <p>POSTER</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Prediction of agreement between peripheral scotoma and nerve fiber layer loss in OCT</p> <p>Author and Co-authors: Luciana Arias Fernandez, MD, Carolina Pelegrini Barbosa Gracitelli, MD, PhD, Tiago dos Santos Prata, MD, PhD, Sérgio Henrique Teixeira, MD, PhD, Augusto Paranhos Jr., MD, PhD,</p> <p>Purpose: The aim of the study is to predict the agreement between outer periphery scotomas found in Octopus 900 semi automatic kinetic perimeter and loss in retinal nerve fiber layer diagnosed at DRI Swept Source Triton optical coherence tomography scanner in order to discover islands of vision not yet detected by the standard static perimeter but which could be suggested by the OCT.</p> <p>Methods: Eighty five eligible volunteers with primary glaucoma, aged 18-80 years, visual acuity better than 0.30 logMAR, spherical ametropia of -5 D to +6 D and/or cylindrical ametropia til -2,5D will be enrolled after informed consent. Then, according to Hodapp-Anderson-Parrish Classification, will be classified as moderate (29 individuals) or advanced (56 individuals) glaucoma. Subjects must perform reproducible and reliable serial visual field exams in the last two years, and those with media opacities or retinal disease will be excluded from the study. Demographic data, systemic clinical conditions will be collected, complete ophthalmological evaluation will be performed and only then the subject will be submitted to the exams in question. The eligible eye must meet the criteria for the study, if both are eligible the right one will be selected. Volunteers will carry out an evaluation for learning in the Octopus perimeter, first. Then they will do the optical coherence tomography exam to again carry out the evaluation in the campimeter, the latter being used for the research. Descriptive analysis will include mean and standard deviation for variables with normal distribution, median and interquartile range for variables with non-normal distribution. Multiple linear regression will be used to assess the impact of linear variables. The statistical significance level will be 0.05.</p> <p>Results: in progress</p> <p>Conclusion: in progress</p> <p>Keywords: glaucoma, OCT, kinect perimeter</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>10. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Henrique Lage Ferreira Ferrer R1</p> <p>e-mail: henrique.ferrer@unifesp.br</p> <p>Advisor:</p> <p>CEP Number: 4043200</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Development of soft skills for entrepreneurship and innovation in students and professors in medical courses in the face of the Industry 4.0 era in the Health sector</p> <p>Author and Co-authors: Dr. Éder Januari, Dr Caio Regatieri, Henrique Ferrer</p> <p>Purpose: The general objective of this project is to cover the gap in the curricular training of students in medical courses regarding the topics of entrepreneurship and innovation in health. The objective of the project is also to extend the activities and experiences acquired to other higher education institutions in the country that aim to develop such skills in students and teachers</p> <p>Methods: The methodological procedures to be followed in this project correspond to a bibliographical review of articles related to the use of experiments in Applied Social Sciences, as well as carrying out experimental trials with students and professors of the medical course. Additionally, training and teaching will be carried out in entrepreneurship and innovation, using Business Games techniques that are considered efficient teaching strategies in the process of encouraging the practice of soft skills. Data will be collected before, during and at the end of the training. Based on the data collected, we intend to apply computational methods that help in the evaluation and impact of future capabilities.</p> <p>Results: Learning innovation and entrepreneurship management theories and tools is considered extremely important in the formation of human capital in the face of industry 4.0. Motivating an entrepreneurial mentality in a nation of students will nurture future thinking for the health sector, generating value for all actors in Brazilian society. The research will also contribute to the training of undergraduate medical students, and to teachers who seek alternatives for teaching entrepreneurship considering an interdisciplinary, theoretical and practical perspective.</p> <p>Conclusion: With the increase in patient load and the decrease in resources in hospitals, it is necessary for medical students to be inspired to develop skills that involve entrepreneurial, innovative and critical thinking in universities and health units. As a consequence of this development, professionals will be able to identify problems within health units, thereby transforming knowledge and ideas into products and services for the population.</p> <p>Keywords: #business #health #tecnology</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Retinitis Pigmentosa-Like in Spinocerebellar Ataxya Type 7 With Infantile Onset</p> <p>Author and Co-authors: Daniel Trahtman de Boer, Leticia Sant`Ana</p> <p>Purpose: To report an atypical retinal manifestation of a patient with clinical diagnosis of SCA-7 with infantile onset.</p> <p>Methods: The patient medical record was reviewed.</p> <p>Results: A 5-year-old female, clinically diagnosed with SCA-7 was evaluated by our medical team following a hospital consultation request. According to the mother's report, by 1 year and 11 months, the patient had development regression, she stopped walking, speaking, and socially interacting. At 2 years and 11 months, she was hospitalized due to severe disease complications. She remained hospitalized since then. At 5 years, an ophthalmological evaluation was requested. The patient had light perception visual acuity in both eyes. Anterior segment examination was normal. Fundus examination of both eyes showed clear vitreous, temporal optic disk pallor, diffuse vascular thinning, clusters of pigmentary changes resembling "bone spicules," and attached retina. She has a family history of paternal grandfather diagnosed with SCA7, confirmed by molecular testing. Additionally, her father, two paternal uncles, and three paternal aunts are affected by the same disease.</p> <p>Conclusion: SCA-7 is the only SCA consistently associated with retinal degeneration. The molecular basis of SCA-7 the expansion of CAG repeats in the ataxin-7 gene. Genetic anticipation is strongly associated, which is described as an earlier age of onset and a more severe progression of the disease in successive generations. Symptoms are usually reduced central vision or abnormal color vision. Fundusoscopic macular changes can range from a mild granular pigment mottling to severe bull's eye maculopathy and peripheral pigmentary retinopathy. The development of diffuse bone spicules and intraretinal pigmentation over the course of only a few years has been reported in SCA-7, but in a patient with young adult-onset disease. Therefore, this is the only case study reporting this retinal finding in a patient with infantile onset. The variable presentation of SCA-7 demonstrate the importance of early retinal evaluation in the diagnosis and management of this disease. Including other retinal manifestations, such as bone spicules, can be beneficial for clinical diagnosis and early suspicion and investigation.</p> <p>Keywords: Cone-Rod Dystrophy, Inherited Retinal Dystrophy, Spinocerebellar Ataxia Type 7</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Acute Posterior Multifocal Placoid Pigment Epitheliopathy: Its Natural Evolution and Multimodal Assessment</p> <p>Author and Co-authors: Luiza Sousa Soares, Guilherme Macedo Souza, Carlos Eduardo de Souza</p> <p>Purpose: To report a case of Acute Posterior Multifocal Placoid Pigment Epitheliopathy (APMPPE), a rare entity, describe its natural history and multimodal evaluation.</p> <p>Methods: Review of medical records.</p> <p>Results: 18-year-old female, myopic, complaining of sudden vision loss in the right eye for 9 days associated with mild cold symptoms which started 2 weeks prior. BCVA was 20/50 OD and 20/20 OS. Slit-lamp exam of both eyes was normal, without anterior chamber reaction or anterior vitreous inflammation. Fundoscopy revealed bilateral multiple white sub-retinal placoid lesions, slightly smaller than 1-disc diameters, along the posterior pole (with foveal involvement) OD and near to the vascular arches OS, marked by hyperautofluorescence. Fluorescein angiography showed hypofluorescence in early stages and hyperfluorescence in late stages. OCT presented localized disruption of the outer retina and RPE atrophy associated with those subretinal lesions and diffuse increase of choroidal thickness. Work-up ruled out HIV, syphilis, and tuberculosis. All these characteristics led to the diagnosis of APMPPE. As it is a self-limited condition, expectant management was chosen. The patient evolved with BVCA 20/40 OD and improvement of the subretinal lesions, which started to present hypoautofluorescence, but the OCT findings is still maintained.</p> <p>Conclusion: APMPPE is an uncommon inflammatory chorioretinopathy, classified as a White Dot Syndrome. The clinical presentation is usually bilateral, affects women and men equally and may be associated with a flu-like prodrome and headache. The classic finding on funduscopy is creamy yellow or grey-white placoid lesions at the level of the RPE in the posterior pole. Cases are often self-limited and visual symptoms resolve by 4 to 8 weeks. There is no consensus on treatment, however, steroids have been attempted to hasten visual recovery, especially in cases with macular involvement or with neurological symptoms due to a risk of associated cerebral vasculitis.</p> <p>Keywords: Acute posterior multifocal placoid pigment epitheliopathy, APMPPE, White dot syndrome.</p>
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(RE) RETINA AND VITREOUS

3. THEME: (REQUIRED) Check one:

INFLAMMATION

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(BE) OCULAR BIOENGINEERING
(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

Deadline: 11/2023

FORMAT:

Abstract should contain:

Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

13. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: João Gabriel Alexander R2

e-mail: jgalexander53@gmail.com

Advisor:

CEP Number: 63654022.6.0000.5505

5. ABSTRACT (REQUIRED):

Title: ANATOMIC, FUNCTIONAL AND MICROPERIMETRIC EVALUATION OF TREATMENT OF CHRONIC CENTRAL SEROUS CHORIORETINOPATHY WITH TWO MICROPULSED LASER STRATEGIES

Author and Co-authors: João Gabriel Alexander Pedro Leite Costa Franco Luiz Roisman Maurício Maia

Purpose: To compare the treatment efficacy, safety, anatomical and functional correlations of chronic cases of central serous chorioretinopathy (CSC) submitted to the two main micropulse laser treatment strategies.

Methods: Prospective, masked, controlled and randomized study. All laser sessions will be administered by a researcher who will not monitor or perform exams on patients during the study period. This treating researcher will decide which micropulse laser strategy will be applied to the 1st patient included and will then follow 1:1 randomization. Randomization must be documented in a location and/or electronic device without access to other researchers in order to preserve masking. Assessments and follow-up examinations will be carried out by researchers blind to the treatment applied. The statistical analysis will be carried out by a third researcher who will separately receive the data collected by the researchers who will carry out the treatment and evaluations/examinations. Sample size: 60 patients. Inclusion criteria: patients with chronic CSC with the presence of subretinal fluid for more than 3 months. Age between 20 and 60 years old. Exclusion criteria: patients with any previous treatment for CSC in the last 3 months, as well as patients using corticosteroids, will be excluded. Visiting routine: during the initial visit, visual acuity will be assessed using ETDRS, color retinography, fluorescein angiography, autofluorescence, OCT and MAIA® macular microperimetry using a strategy of 37 macular stimuli will be made. Afterwards, the patient will be re-evaluated with the same exams 1, 3 and 6 months after intervention.

Results: Exams and results still in progress.

Conclusion: We hope to define the best micropulse laser strategy for the treatment of patients with chronic CSC.

Keywords: Chronic central serous chorioretinopathy; micropulse laser; microperimetry; optical coherence tomography

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>14. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Iago Diógenes Azevedo Costa R2</p> <p>e-mail: iagoazevedo07@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 0698/2020</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Image Artifacts Analysis in Handheld Retinal Fundus Camera Photos</p> <p>Author and Co-authors: Costa, I. D. A, Novaes, F. C, Regatieri, C. V. S, Nakayama, L. F.</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	<p>Purpose: Retinal fundus photography plays a key role in diagnosing and monitoring eye diseases, such as diabetic retinopathy, age-related macular disease and glaucoma. Portable retinal cameras have made it more accessible to capture fundus images in different settings. However, the quality of these images can be compromised by the presence of artifacts, which can affect the labeling and the performance of artificial intelligence (AI) systems designed for automated screening and disease monitoring. This project presents an analysis of handheld retinal fundus photos, focusing on the identification and quantification of artifacts, and the impact of ocular mydriasis on imaging artifacts.</p>
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	<p>Methods: We evaluated 253 fundus photos captured with the handheld Eyer camera (Phelcom) from 36 patients diabetic retinopathy screening patients. For artifact analysis, each image was assessed by two ophthalmologists and adjudicated by a senior retina specialist for illumination, dust/dirt, focus, dark areas, bright areas, and impossible analysis. We compared the prevalence of artifacts within mydriasis and non-mydriasis groups using Chi-square test. Statistical analysis was performed using Python 3.10 libraries.</p>
<p>Deadline: 11/2023</p>	<p>Results: Our study included 36 patients, with a mean age of 60 years (SD 11.85) and an average diabetes duration of 16.88 years. Diabetic retinopathy classification revealed: no retinopathy (42.95%), mild (1.92%), moderate (31.41%), severe (4.49%), and proliferative (19.23%). In artifact analysis, 75.72% of fundus images showed artifacts, including illumination (15.8%), focus (5.92%), dark areas (54.5%), and bright areas (85.3%). In 11% of cases, analysis was impossible due to artifacts. In the comparison, the illumination (P=.003, OR 0.33), focus (P=.013, OR 1.8), and bright areas (P=.03, OR 1.37) artifacts were statistically significant.</p>
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	<p>Conclusion: This study highlights the occurrence of image artifacts in retinography from portable devices. Our findings underscore the significance of addressing image artifacts in AI-driven tasks. Further research is essential to mitigate these issues and understand their impact. Notably, this project has created a pioneering image artifacts dataset, promising to advance AI studies in this field, potentially improving diagnostic accuracy and patient care.</p> <p>Keywords: Artificial Intelligence; Eye Diseases; Screening; Diabetic Retinopathy; Artifacts.</p>

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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: VITREORETINAL SURGICAL PERFORMANCE SIMULATION AFTER ACUTE ALCOHOL CONSUMPTION AND NEXT-MORNING HANGOVER</p> <p>Author and Co-authors: Marina Roizenblatt, MD, PhD, Peter L. Gehlbach, MD, PhD, Vitor G. D. Marin, MD, Arnaldo Roizenblatt, MD, Thiago Marques Fidalgo, MD, PhD, Vinicius S. Saraiva, MD, PhD, Mauricio H. Nakanami, MD, Luciana C. Noia, MD, PhD, Sung E. Song Watanabe, MD, PhD, Eri</p> <p>Purpose: To analyze the acute and next-morning effect of breath alcohol concentration (BAC)-adjusted alcohol intake on overall simulated vitreoretinal surgical performance.</p> <p>Methods: Surgical performance was assessed using the posterior module of the Eyesi surgical simulator after same-day alcohol consumption. Overall performance was measured using the Eyesi total score (0-700, worst-best) on same-day alcohol consumption and next-morning hangover.</p> <p>Results: Surgeons performed worse after same-day drinking high-dose alcohol compared to low-dose alcohol (-9.66 +-10.77 vs. -1.20 +- 7.71, p=0.04, respectively). There was no difference in dexterity comparing next-morning hangover with same-day low-dose alcohol (-2.36 +-14.47 vs. -1.20 +-7.71, p=1.00, respectively). Performance improved in hangover compared to same-day high-dose alcohol, but not with a statistically significant difference (-2.36 +-14.47 vs. -9.66 +- 10.77, p=0.09, respectively).</p> <p>Conclusion: Simulated surgical dexterity among senior vitreoretinal surgeons progressively worsened on the same day after increasing BAC-adjusted acute alcohol consumption and partially improved the following morning, remaining similar to dexterity after same-day low-dose alcohol ingestion.</p> <p>Keywords: alcohol, hangover, surgical dexterity</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Analysis of tremor in vitreoretinal surgery after alcohol consumption and hangover</p> <p>Author and Co-authors: Marina Roizenblatt, Peter L. Gehlbach, Vitor D. G. Marin, Arnaldo Roizenblatt, Thiago Marques Fidalgo, Vinicius S. Saraiva, Mauricio H. Nakanami, Luciana C. Noia, Sung E. Song Watanabe, Erika S. Yasaki, Renato M. Passos, Octaviano Magalhães Junior, Rodrig</p> <p>Purpose: Objectively study the acute and next-morning effect of breath alcohol concentration (BAC)-adjusted alcohol intake on microtremor among senior vitreoretinal surgeons.</p> <p>Methods: Participants were eleven vitreoretinal surgeons with more than 10 years? surgical experience. Surgical performance was assessed using the posterior module of the Eyesi surgical simulator after same-day alcohol consumption with a BAC reading of 0.06%-0.10% (low-dose), followed by 0.11-0.15% (high-dose). Afterwards, next-morning participants? surgical performance was evaluated after a supervised night out targeting a BAC of 0.11-0.15% combined with a night?s sleep. The main outcome was change in the Eyesi-generated hand tremor (0-100, best-worst), compared to each subject?s baseline performance.</p> <p>Results: Tremor rate increased in hangover compared to low-dose alcohol ingestion (13.75 ± 21.65 vs. -13.00 ± 10.73, $p=0.03$, respectively). A trend toward a greater tremor in the hangover was observed compared to same-day high-dose alcohol (13.75 ± 21.65 vs. -1.51 ± 17.17, $p=0.08$, respectively). Finally, expert surgeons showed no change in delta tremor assessment when comparing exposure to alcohol at low and high doses (-13.00 ± 10.73 vs. -1.51 ± 17.17, $p=0.77$, respectively).</p> <p>Conclusion: We showed that the simulated surgical tremor increases in the next-day hangover compared to same-day alcohol intoxication. Our data might provide safety guidance for microsurgeons on what to avoid in terms of BAC-adjusted alcohol intake levels and exposure time prior to the surgical procedure with the aim of preventing alcohol-related harm to patients.</p> <p>Keywords: tremor, hangover, vitreoretinal surgery</p>
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(RE) RETINA AND VITREOUS

3. THEME: (REQUIRED) Check one:

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(BE) OCULAR BIOENGINEERING
(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
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(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
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Purpose
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Conclusion
Keywords

Poster guidelines:
90cm x 120cm

17. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Frederico Do Carmo Novaes R3

e-mail: fred.novaes@gmail.com

Advisor:

CEP Number: 0698/2020

5. ABSTRACT (REQUIRED):

Title: Ophthalmology Optical Coherence Tomography Databases for Artificial Intelligence Algorithm: A Review

Author and Co-authors: Frederico Novaes, Iago Azevedo, Leo Anthony Celi, Caio Regatieri, Luis Filipe Nakayama

Purpose: Imaging techniques are pivotal to the field of ophthalmology as they allow for the visualization and assessment of the eye. With the introduction of advanced machine learning techniques and artificial intelligence, the focus now shifts to the imaging datasets utilized by this new technology. While disparities and health inequalities hidden within data are well-documented, the field of ophthalmology faces specific challenges to the creation and maintenance of datasets. This review surveys the current landscape of Ophthalmology Optical Coherence Tomography Databases and provides recommendations.

Methods: This review focused on publicly available Optical Coherence Tomography (OCT) datasets, conducted a literature search. The authors retrieved and analyzed datasets used in the selected papers, including only those categorized as open. The variables analyzed in the OCT datasets for this review encompassed dataset details, imaging devices, OCT technology, dataset size, subject demographics, disease proportions, healthy vs. sick ratios, abnormal slab counts in OCT images, patient origin, and dataset labeling methodology.

Results: The search strategy yielded 183 articles. A total of 50 articles were used in the final analysis for dataset assessment. From the 50 included articles, a total of 15 datasets were retrieved, 8 publicly available included in this review. Demographic information was not widely available throughout all 8 datasets. The images include both healthy individuals and those afflicted with a diverse range of conditions. All datasets with labels employed combinations of clinicians, ophthalmology residents, general ophthalmologists, and retina and glaucoma specialists for their labeling criteria.

Conclusion: OCT offers detailed insights into ocular structures, serving as a valuable data source for AI algorithms that can classify and screen ocular conditions, ultimately enhancing understanding and treatment planning. However, the review also highlights challenges, particularly related to dataset characteristics and availability. Limited diversity, geographic representation, and demographic information reveal research gaps.

Keywords: Optical Coherence Tomography, Datasets, Artificial Intelligence

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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Does contact lens wear affect choroidal thickness measurements?</p> <p>Author and Co-authors: Luiz H. Lima, Lucas Z. Ribeiro, Luciana Arrais, Dante Akira, Talita F. Oliveira, Maurício Maia, and Mauro S. Campos</p> <p>Purpose: The purpose of this study was to measure the choroidal (CT) and retinal (RT) thicknesses in eyes of emmetropic subjects in which ocular accommodation was induced by contact lens at different refractive power.</p> <p>Methods: The retinal and choroidal images of swept-source optical coherence tomography (SS-OCT) were obtained in emmetropic eyes, without ocular pathology. Both the CT and RT measurements at the central macula were performed under mesopic condition before and after positive (from +24.0 to +24.5 D) and negative (from -27.5 to -211.5 D) soft contact lens wearing, and determined using the intrinsic automated layer segmentation software built into the SS-OCT system. The resulting data files consisted of the average (mean) choroidal and retina thicknesses over areas corresponding to the Early Treatment Diabetic Retinopathy Study (ETDRS) regions. An interval of 30 min between the contact lens wearing and OCT was settled to ensure ocular accommodation.</p> <p>Results: The study cohort was composed of 35 eyes of 18 subjects who had a mean age of 24.0 years (standard deviation ±3.1 years, range 19-29 years). The mean axial length measurements was 23.74 mm (range 22.34-25.11 mm). The mean subfoveal CT was 320.9 μm (standard deviation ±55.9 μm) and 315.4 μm (standard deviation ±53.8 μm) before and after positive contact lens wearing, respectively. The mean subfoveal CT was 320.1 μm (standard deviation ±52.3 μm) and 316.4 μm (standard deviation ±50.6 μm) before and after negative contact lens wearing, respectively. There was no statistically significant difference between before and after positive (p=0.203) or negative (p=0.053) contact lens wearing. In the subgroup of RT measurement, composed of 22 eyes of 11 subjects from the CT cohort. The mean foveal RT was 231.6 μm (standard deviation ±24.3 μm) and 231.6 μm (standard deviation ±22.2 μm) before and after positive contact lens wearing, respectively. The mean subfoveal RT was 231.1 μm (standard deviation ±23.1 μm) and 228.1 μm (standard deviation ±25.0 μm) before and after negative contact lens wearing, respectively. here was no statistically significant difference between before and after positive (p=0.276) and in the positive lens (p=1.000) contact lens wearing.</p> <p>Conclusion: In the present study, contact lens wear did not significantly change the OCT measurements for CT and RT in emmetropic eyes. Therefore, precise CT and RT measurements could be obtained in contact lens wearers, without the need to remove them before the OCT imaging</p> <p>Keywords: choroidal thickness; retinal thickness; contact lentes</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>19. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Juan Fulgencio Welko Mendoza R4</p> <p>e-mail: juanfwm@gmail.com</p> <p>Advisor:</p> <p>CEP Number: -</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Analysis of OCT-Angiography findings in patients with acute elevations of intraocular pressure</p> <p>Author and Co-authors: Mendoza, Juan Fulgencio Welko, Watanabe, Sung Eun Song</p> <p>Purpose: The primary objective is to identify changes in vessel density, flow area, perfusion metrics, and choroidal thickness, in patients with acute elevations of intraocular pressure in patients without glaucoma diagnose at the time of the study.</p> <p>Methods: This will be a longitudinal study, including patients from the Ophthalmology service at Sao Paulo Hospital, Federal University of Sao Paulo (Brazil) with documented episodes of elevated IOP (>21 mmHg) in their medical records. Control Group: the same patients after intraocular pressure stabilization. Data Collection: Demographic data, including age, sex, medical history, and medication use, will be collected. Detailed ophthalmologic examinations that included a visual acuity assessment, pneumatic tonometry, slit-lamp biomicroscopy, and EDI SD-OCT using the Heidelberg Spectralis (Heidelberg Instruments, Heidelberg, Germany) and angiography measurements Optovue (RTVue Avanti) at the moment of detection of the IOP elevation and 1 month after the episode. Retrieval of stored OCT-A and OCT images of the macular and optic nerve head regions. Data Analysis: Quantitative analysis of the retrospective OCT-A images to assess vessel density, foveal avascular zone (FAZ) parameters, and perfusion metrics. Statistical analysis using t-tests and correlation analyses to identify differences between groups and potential associations with clinical parameters.</p> <p>Results: We anticipate that this prospective analysis will provide insights into choroidal vasculature dynamics and specially potential retinal microvascular changes associated with elevated IOP.</p> <p>Conclusion: These findings may contribute to our understanding of early retinal and choroidal vascular alterations in patients at risk of glaucomatous progression and guide future IOP lowering therapies. This research may have significant implications for identifying potential biomarkers associated with IOP elevation and early retinal and choroidal vascular changes. The outcomes may guide future prospective studies and improve our understanding of the relationship between IOP and microvascular alterations.</p> <p>Keywords: OCT-A; microvasculature; IOP; choroidal thickness; retinal microvasculature</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Correlation between choroid thickness measured by optical coherence tomography and renal function in patients with type 1 diabetes</p> <p>Author and Co-authors: Marina Moura Costa Spinola, Sung Eun Song Watanabe</p> <p>Purpose: Analysis of central/subfoveal choroidal thickness in patients with type 1 Diabetes Mellitus and correlation with microalbuminuria and renal function, monitored and treated at Hospital São Paulo to determine the possible correlation of subfoveal choroidal thickness value and risk of impaired renal function.</p> <p>Methods: Clinical examination and analysis of retinal imaging tests (optical coherence tomography) and laboratory tests of patients with DM1, treated and monitored at Hospital São Paulo, in the period between October 2023 and December 2023</p> <p>Results: in progress</p> <p>Conclusion: in progress</p> <p>Keywords: diabetes; diabetes type 1; choroidal thickness; chronic renal disease</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RE) RETINA AND VITREOUS</p>	<p>21. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Nelson Chamma Capelanes PG1</p> <p>e-mail: nelsonchamma@gmail.com</p> <p>Advisor: Caio Regatieri</p> <p>CEP Number: 90330618.8.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Optical Coherence Tomography Angiographic Evaluation of Macular Vessel Density in Diabetic Macular Edema After Intravitreal Dexamethasone Implants: A Prospective Interventional Trial</p> <p>Author and Co-authors: Nelson C. Capelanes, MD, Fernando K. Malerbi, MD, PhD, Eduardo A. Novais, MD, PhD, Caio Vinicius S. Regatieri, MD, PhD</p> <p>Purpose: The goal of this study was to assess macular vascular density evolution, macular thickness, and functional outcomes after intravitreal dexamethasone implants for diabetic macular edema.</p> <p>Methods: Vascular density was evaluated with optical coherence tomography (OCT) angiography in 21 eyes. Macular thickness was evaluated with structural OCT. Visual acuity and contrast sensitivity were evaluated before and after treatment, and these functional outcomes were analyzed for association with anatomic outcomes. Macular vessel density in the superficial capillary plexus was evaluated with OCT angiography and quantified in areas with no fluid, allowing a more accurate measurement and eliminating the segmentation bias in areas with intraretinal fluid. Such a methodology was possible by positioning the scans only in areas with no fluid before and after the implant. The absence of fluid in these areas was confirmed by three experienced evaluators using both the B-scan and the en face. Visual acuity and contrast sensitivity were evaluated before and after treatment, and these functional outcomes were analyzed for association with anatomic outcomes.</p> <p>Results: At 30, 60, and 90 days after implantation, there was improvement in macular perfusion in areas without fluid after intravitreal dexamethasone implantation, accompanied by reduced macular thickness and improved visual acuity ($P < .001$). However, there was no improvement in contrast sensitivity after treatment.</p> <p>Conclusion: Improved macular perfusion after treatment with intravitreal dexamethasone implantation may be associated with modulation of leukostasis, when the release of cytokines leads to capillary endothelial damage and obstruction of the microvasculature, leading to impaired capillary perfusion and ischemic damage. Despite the anatomical and functional findings demonstrated, further studies are needed to prove the relationship between the inflammatory mechanisms of diabetic macular edema and its relationship with macular perfusion and functional aspects.</p> <p>Keywords: diabetic retinopathy; diabetic macular edema; intravitreal dexamethasone; OCT Angiography; leukostasis;</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>POSTER</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
<p>Deadline: 11/2023</p>	
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(UV) UVEITIS</p>	<p>22. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Guilherme Macedo Souza R4</p> <p>e-mail: gmacedo4@gmail.com</p> <p>Advisor:</p> <p>CEP Number: Pendente</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: ATYPICAL PATTERN OF OCULAR TOXOPLASMOSIS: RECURRENT INNER FOVEAL TOXOPLASMIC RETINITIS (RIFTER)</p> <p>Author and Co-authors: Guilherme Souza, Laurentino Biccas, André Maia, Claudio Silveira, Rubens Belfort Jr</p> <p>Purpose: To describe an atypical pattern of ocular toxoplasmosis that has not yet been established</p> <p>Methods: Descriptive observational retrospective study in three referral centers. Participants are all the patients with ocular toxoplasmosis confirmed by clinical and laboratory criteria who presented a specific similar atypical clinical pattern, not previously described.</p> <p>Results: Four Brazilian patients, from 3 different referral centers, presented similar atypical pattern of ocular toxoplasmosis characterized by mild vitritis, foveal cavitation involving all retinal layers associated with adjacent inner retinal necrosis. The appearance of the OCT image resembling a "rift", led the authors to define this pattern as a Recurrent Inner Foveal Toxoplasmic Retinitis (RIFTER)</p> <p>Conclusion: RIFTER can be considered as a new description of an atypical pattern of toxoplasma retinochoroiditis, and clinicians should be aware of it and consider testing for toxoplasmosis in patients with similar findings. Failure to recognize the different possible clinical presentations of ocular toxoplasmosis may delay diagnosis and treatment, compromising visual prognosis.</p> <p>Keywords: Uveitis, Toxoplasmosis, Ocular Toxoplasmosis</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the "UNIFESP Ethical Committee"</p> <p>POSTER</p>	
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(UV) UVEITIS

3. THEME: (REQUIRED) Check one:

INFECCION

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Scientific Section Descriptions (two-letter code):

(BE) OCULAR BIOENGINEERING
(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

Deadline: 11/2023

FORMAT:

Abstract should contain:

Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

23. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Hugo Xavier Rocha Filho R1

e-mail: hugoxavierrochafilho@hotmail.com

Advisor:

CEP Number: 38405-305

5. ABSTRACT (REQUIRED):

Title: Ocular Tuberculosis: Case Series

Author and Co-authors: Hugo Xavier Rocha Filho, Guilherme Macedo Souza, Carlos Eduardo de Souza

Purpose: To describe different manifestations of ocular tuberculosis (OTB) and highlight the importance of recognizing compatible clinical phenotypes.

Methods: Series of six cases of presumed OTB from referral uveitis service.

Results: 1. 29-year-old male, ex-inmate, with blurred vision OS for 7 days, presented Occlusive Retinal Vasculitis. TST of 17mm and a cavitation in chest CT led to presumed OTB diagnosis. 2. 28-year-old male, ex-inmate, with low visual acuity OS for 2 years. Fundus exam presented a bilateral Serpiginous-like choroiditis. TST of 14mm led to the presumed diagnosis of OTB. 3. 45-year-old male, complaining of low vision OD, redness, and pain for 9 days. He presented multiple choroidal granulomas, optic disc swelling, choroidal folds and thickening of the sclera. A TST of 35mm led to the diagnosis of Granulomatous Multifocal Choroiditis and Posterior Scleritis with Optic Disc Involvement due to presumed OTB. 4. 28-year-old male, ex-inmate, with low vision OS for 2 years. Fundus exam presented multiple Choroidal Granulomas, CNV and Occlusive Retinal Vasculitis. TST of 18mm and a cavitation seen in chest CT led to the diagnosis of presumed OTB. 5. 46-year-old male, ex-inmate, whose mother already treated tuberculosis, with low vision for long time and recent pain and redness both eyes. Physical exam showed Anterior and Posterior Scleritis in both eyes and Serpiginous-like Choroiditis OD and Multifocal Choroiditis OS. Positive IGRA led to the presumed OTB diagnosis. 6. 54-year-old female, complaining of redness, pain, and blurred vision OD. Physical exam showed Anterior Scleritis and Anterior Granulomatous Uveitis with Synechiae. Positive IGRA led to the presumed OTB diagnosis.

Conclusion: The diagnosis of OTB is a real challenge for ophthalmologists given the difficulty in isolating the infectious agent. Therefore, due to the requirement of a presumed diagnosis, besides inquire the epidemiological data and the evidence of previous contact with the bacillus (through TST or IGRA), it is essential to recognize the compatible clinical phenotypes of OTB. The manifestations are diverse and may reflect activity of the bacillus or a hypersensitivity reaction to it. Knowing the most associated clinical patterns lead to a more accurate and rapid diagnosis, improving the visual prognosis of patients.

Keywords: uveitis; tuberculosis; ocular tuberculosis

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RS) REFRACTIVE SURGERY</p>	<p>24. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Ana Valéria e Vasconcelos França Cortez R4</p> <p>e-mail: anafrancacortez@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 64053120</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Eficácia, segurança e previsibilidade do PRK associado à crosslinking ultrarrápido de meia fluência de forma simultânea para córneas borderline (PRK Xtra)</p> <p>Author and Co-authors: Daniel Diniz da Gama Bernardo Kaplan Moscovici Ana Valéria e Vasconcelos França Cortez Mauro Silveira de Queiroz Campos</p> <p>Purpose: PRK is a safe and precise refractive surgery that uses the Excimer Laser to correct refractive errors. Although it is effective, it can cause weakening of the cornea, resulting in ectasia. Crosslinking (CXL) is a procedure that strengthens the cornea and has been combined with PRK to reduce the risk of ectasia. The objective of this combination is to increase the safety of PRK in patients with borderline corneas, who have risk factors for ectasia. Although the surgery is considered safe, there are risks and complications, such as corneal opacities and loss of endothelial cells. However, the use of a reduced and ultra-rapid CXL protocol is expected to minimize these adverse effects, making it safer and less aggressive. Therefore, this study aims to evaluate the safety, efficacy, stability, and refractive predictability of PRK combined with ultrafast CXL (PRK Xtra) in patients with corneas borderline for refractive surgery.</p> <p>Methods: The study is a randomized clinical trial with primary data collection. Candidates for refractive surgery will be recruited at the ambulatory of São Paulo Hospital, after approval by the Research Ethics Committee of the Federal University of São Paulo. If the candidate is eligible, and after agreeing to the Informed Consent Form, he or she will undergo refractive surgery (PRK) with surface ablation with the Excimer Laser (WaveLight® EX500 ? Alcon, Forth Worth, Texas). The second stage then follows: cross-linking (Opto XLink ? Opto, Miami, Flórida) using 0.1% Isotonic riboflavin (soaking time: 15 minutes), and UVA irradiation (wavelength of 365 nm and irradiance of 30 mW/cm²) for 90 seconds. Mitomycin 0.02% is then applied for 30 seconds to the de-epithelialized area and finally the area is washed with BSS (Balanced Salt Solution - Alcon, Forth Worth, Texas). A therapeutic contact lens is then placed to protect the cornea until complete re-epithelialization, and a drop of topical 0.5% moxifloxacin is applied. From then on, the patient will be monitored at the proposed intervals and their results will be recorded up to two years post-operatively. After this, the patient will be monitored annually in the service.</p> <p>Results: In progress</p> <p>Conclusion: In progress</p> <p>Keywords: Refractive Surgery, Cross-linking, keratoconus</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(ST) STRABISMUS</p>	<p>25. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Felipe Moreira da Cruz Fellow</p> <p>e-mail: felipemeduffj@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 4040002</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Comparison of Strabocheck® with Prism and Alternative Cover Test in Measuring the Ocular Deviation</p> <p>Author and Co-authors: Felipe Moreira da Cruz Simone Nakayama</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	<p>Purpose: INTRODUCTION Accrued measurements of ocular deviation are important for clinical follow-up and surgical planning of patients with strabismus¹. The use of the alternating prism coverage test (APCT) is considered the gold standard as it is a dissociative method that allows the presence of tropia and phoria components to be assessed, in addition to not being influenced by angle kappa². However, this method requires the patient's cooperation and takes time to accomplish. Alternatively, you can use other techniques such as the Hirschberg test for measurement, but the result may be influenced by the subjective aspect of interpretation^{2 3}. New alternatives for measuring ocular deviation are emerging. Strabocheck®, a free website developed by researchers from the University Hospital of Nantes (Nantes, France) allows the assessment of the deviation based on photodocumentation of the corneal reflex and calculates the observed deviation. OBJECTIVE: To compare the Strabocheck® analysis with the alternating prism coverage test in patients of the strabismus clinic of the Department of Ophthalmology and Visual Sciences at the Federal University of São Paulo ? UNIFESP.</p> <p>Methods: METHODS: A prospective study was performed to evaluate the correlation of the angular measurement of the Strabocheck® test with the alternative prism coverage test (APCT) for distance deviation in patients with horizontal strabismus. The subjects from the strabismus clinic at the Federal University of São Paulo from August 1 st, 2023 to October 30 th, 2023 received a complete ophthalmological examination and measurement of the deviation angle with APCT. Facial photographs with the flash on at distance were taken to taken to perform the Strabocheck analysis according to the instructions on the website. Patients with restrictive and paralytic strabismus, visual acuity less than 20/40 in both eyes, age less than 14 years, vertical angle greater than 5 prism diopters or poor cooperation were excluded.</p>
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	<p>Results: in progress</p> <p>Conclusion: in progress</p> <p>Keywords: strabism, strabocheck, prism coverage test</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Statistical Analysis of the prevalence of strabismus in patients with Congenital Cataract</p> <p>Author and Co-authors: Raíra Fortuna Cavaliere Mendes Moraes Ana Paula Silverio Simone Nakayama</p> <p>Purpose: INTRODUCTION One of the biggest challenges in pediatric ophthalmology is the early identification and treatment of amblyopia, as it is the main preventable cause of monocular blindness in children¹. Its prevalence can vary between 1% and 6% in the pediatric population, leading to permanent vision loss in 2.9% of adults². Amblyopia can be classified as refractive (anisometropic or ametropic), strabismic, or deprivation. The compromising of the visual axis causes deprivation, not allowing the retina to receiving enough light, which is the most severe case of amblyopia. Congenital cataract is an important cause of unilateral or even bilateral deprivation amblyopia. Early diagnosis and treatment are crucial and ideally the surgery should take place before 3 months of age. However, the intraoperative period is only the beginning of the treatment in these children³. Despite all efforts to better acuity, most patients will develop strabismus over time³. The strabismus developed may need surgical corrections over time and it is important to know its incidence and risk factors associated. GOAL This study aims to evaluate strabismus incidence in patients who underwent congenital cataract surgery at Hospital São Paulo, in the Ophthalmology and Visual Sciences Service at UNIFESP.</p> <p>Methods: METHODOLOGY The case selection criterion was the performance of congenital cataract correction surgery at HSP from 2021 to 2023. The cases will be divided into two groups: aphakic and pseudophakic. Age, gender, medical conditions, postoperative refractive error, postoperative visual acuity, strabismus, need of additional surgeries and intraocular pressure will be assessed and analyzed.</p> <p>Results: In progress</p> <p>Conclusion: In progress</p> <p>Keywords: Keywords: Strabismus; congenital cataracts</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: CORRELATION BETWEEN KRIMSKY AND HIRSCHBERG TEST WITH THE ALTERNATE PRISM COVER TEST FOR THE DEVIATION MEASUREMENT IN HORIZONTAL STRABISMUS</p> <p>Author and Co-authors: Gusmão, M. G. M, Nakayama, A. S.</p> <p>Purpose: To compare Hirschberg and Krimsky tests with the gold standard alternating prism and cover test in patients of the strabismus sector at the Department of Ophthalmology and Visual Sciences, Federal University of São Paulo ? UNIFESP.</p> <p>Methods: A prospective study was performed to evaluate the correlation of the angle measurement of the Krimsky and Hirschberg test with the alternate prism and cover test (APCT) for the distance deviation in patients with horizontal strabismus. The subjects from the strabismus sector at the Federal University of São Paulo from August 1st 2023 to October 30th 2023 received a complete eye examination and measurement of the angle of deviation with an APCT and Krimsky test by 1 ophthalmologist. Facial photographs with the flash on at 1 meter distance were taken to perform the Photo-Hirschberg test. Analyzed data included age, gender and measures of the angle deviation with Krimsky, Hirschberg and alternate prism and cover test. Patients with restrictive and paralytic strabismus, visual acuity worse than 20/40 in both eyes, age less than 14 years old, vertical strabismus, or poor cooperation were excluded.</p> <p>Results: In progress</p> <p>Conclusion: In progress</p> <p>Keywords: Angle measurement, Strabismus</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(LV) LOW VISION</p>	<p>28. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Karin Grace Vieira Pozza Fellow</p> <p>e-mail: karinvieirapozza@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 05711-001</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Assessment of functional vision in children with an without TEA</p> <p>Author and Co-authors: Karin Grace Vieira Pozza</p> <p>Purpose: O presente trabalho tem como objetivo de pesquisa realizar a avaliação da visão funcional infantil, em crianças sem comorbidades e alterações visuais e crianças dentro do espectro autista. Esse protocolo é aplicado dentro do ambulatório de Reabilitação visual no setor de estimulação visual precoce (EVP) por um grupo de doutoras. Durante o processo de avaliar e pensar em estratégias/estímulos para o paciente atendido, observei que realizar a avaliação da visão funcional nos pacientes que procuram o atendimento do ambulatório, contribui para uma maior adequação/ adaptação dos estímulos, sejam eles visuais, sensoriais, táteis. Serviram como referência para essa pesquisa os seguintes teóricos: Gagliardo e Nobre (2021),Lopes et al(2020).</p> <p>Methods: Baseado no estudo de Lopes et al, 2020, utilizamos a seguinte metodologia: A distância de aplicação da avaliação varia de 30 a 50cm, o ambiente deve ser livre de aglomerados e distratores visuais, e o intervalo de apresentação entre os estímulos é de aproximadamente 30 segundos. O posicionamento da criança varia conforme a idade, e o avaliador deve permanecer fora do campo visual funcional da criança.</p> <p>Results: O presente estudo está em andamento.</p> <p>Conclusion: O presente estudo está em desenvolvimento, por este motivo ainda não apresenta conclusões gerais sobre o tema pesquisado, mas é possível observar que a avaliação da visão funcional nos pacientes que procuram o atendimento do ambulatório, contribui para uma maior adequação/ adaptação dos estímulos, sejam eles visuais, sensoriais, proporcionando assim uma sensível melhora não só no campo visual do paciente, mas estimulando a criança a ação motora, a agir através da experimentação em sua rotina de vida diária, contribuindo assim para uma maior autonomia da criança seja no ambiente familiar/escolar.</p> <p>Keywords: Comportamento visual - avaliação da visão funcional - estimulação visual precoce - desenvolvimento visual .</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	
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<p>Deadline: 11/2023</p>	
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(LV) LOW VISION</p>	<p>29. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Raphael Pellegrino Magdaleno PIBIC</p> <p>e-mail: raphaelpmagdaleno@gmail.com</p> <p>Advisor: Denise de Freitas</p> <p>CEP Number: 01230-000</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Analysis of blindness and Low Vision causes at "Luiz Braille" Institute Low Vision Outpatient Clinic</p> <p>Author and Co-authors: Raphael Pellegrino Magdaleno, Rafael Lourenço Magdaleno. Advisor Denise Freitas</p> <p>Purpose: The study purpose is to assess the primary causes of visual impairment (blindness and low vision) in a sample of patients referred to the Low Vision Department of the "Luiz Braille" Institute, both in the adult and pediatric populations.</p> <p>Methods: Medical records and patient data from those who were attended at the outpatient clinics from October 2020 to October 2022 were evaluated.</p> <p>Results: 240 patients were able to fit at the study criteria. After statistical analysis, 74% of patients are between 50 and 90 years old. Most commonly both eyes are affected (42%). The three most prevalent groups are respectively retinal involvement with 145 patients, corresponding to 60% of the study, followed by glaucoma with 31 patients (13%) and uveitis with 17 (7%). Non-glaucomatous optic atrophy and patients with mixed pathologies complete the study. Due to the large number of patients, it was decided to subdivide retina into smaller groups, with age-related macular degeneration being the most common (64 patients - 26%), followed by retinal dystrophy (38 patients - 16%) and diabetic retinopathy (19 - 8%). For the WHO classification, 71% of patients were diagnosed as having low vision and 29% as blind. There was only one case that disagreed with the Brazilian classification</p> <p>Conclusion: In brief, low vision and blindness diseases are extremely common world wide, affecting around 300 million people. The main causes of blindness in adults are age-related macular degeneration, diabetic retinopathy, cataract glaucoma and uveitis. At the Jundiaense Braille Institute, retinal pathologies were noted to be the most prevalent in the population, subdivided mainly into AMD, retinal dystrophy and diabetic retinopathy. The second most prevalent pathology was glaucoma, followed by uveitis and non-glaucomatous optic atrophy. It is interesting to note that cataracts are rarely isolated as a cause of blindness, but are commonly associated with other pathologies, meaning that the diagnosis and treatment of this disease are earlier. There was no significant difference between men and women in the largest groups. However, about age, the older the patient, the tendency is for retinal involvement to increase and the younger they are, congenital or infectious causes are more relevant.</p> <p>Keywords: Ophthalmology, low Vision, blindness</p>
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(CO) CORNEA AND EXTERNAL DISEASE

3. THEME: (REQUIRED) Check one:

INFLAMMATION

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(BE) OCULAR BIOENGINEERING
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(CA) CATARACT
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(LA) LABORATORY
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(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
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(ST) STRABISMUS
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Methods
Results,
Conclusion
Keywords

Poster guidelines:
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30. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Mylena Cristisna de Barsch PIBIC

e-mail: mylena.barsch@hotmail.com

Advisor: Denise de Freitas

CEP Number: 0572/2022

5. ABSTRACT (REQUIRED):

Title: Scleritis as a manifestation of Acanthamoeba keratitis

Author and Co-authors: Mylena Cristina de Souza Barsch, Ana Luisa Hofling-Lima, Denise de Freitas

Purpose: To demonstrate that scleritis can be an immune-mediated response to Acanthamoeba keratitis

Methods: Patient was initially treated with systemic prednisolone with limited response followed by systemic immunosuppression with azathioprine with strict maintenance of anti-amoebic treatment.

Results: Fortunately, there was a good response to the treatment and although the patient lost significant scleral thickness there was no spread of the infection and visual acuity remained within normal limits, as did the rest of the ophthalmological examination. Left eye underwent white dyeing to reduce the dark aesthetic consequences of scleral thinning.

Conclusion: Scleritis is a devastating complication of Acanthamoeba keratitis due to a poor prognosis and a high enucleation rate of 6%.

Keywords: Acanthamoeba, keratitis, scleritis

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(CO) CORNEA AND EXTERNAL DISEASE

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Title
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Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

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90cm x 120cm

31. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Maurício Pessôa Lima Filho R2

e-mail: mauricio160697@gmail.com

Advisor:

CEP Number: 04044-060

5. ABSTRACT (REQUIRED):

Title: Ten years of cornea donation at Hospital São Paulo Eye Bank: profile of donors between 2013 and 2023

Author and Co-authors: Maurício P. Lima Filho , Ester Amorim , Flávio E. Hirai

Purpose: Evaluate, through analysis of the forms, the intervals between death, enucleation, preservation and distribution of the cornea. Know the profile of cornea donors (age, sex, cause of death)

Methods: This is a retrospective cross-sectional observational study Cornea donor forms will be analyzed from January 2013 to December 2023 by the Eye Bank of Hospital São Paulo (BOHSP). From the donor forms we will obtain information regarding age, sex, cause of death, endothelial density from specular microscopy, the intervals between death, enucleation, preservation and distribution of the cornea, in addition to the destination given to the tissue, i.e. availability or not for graft and type of graft.

Results: Pending Results, ongoing research

Conclusion: Pending

Keywords: Cornea; Transplant; Demography

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(CO) CORNEA AND EXTERNAL DISEASE</p>	<p>32. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Tulio Ruiz Eschiapati R2</p> <p>e-mail: tulioeschiapati@hotmail.com</p> <p>Advisor:</p> <p>CEP Number: 73631023.3.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>ANGIOGENESIS</p>	<p>5. ABSTRACT (REQUIRED): Title: Evaluation of Mitomycin C Intravascular Chemoembolization (MICE) for Corneal Neovascularization</p> <p>Author and Co-authors: Tulio Ruiz Eschiapati, Ludmila Nascimento Pinto Silva, Luciene Barbosa de Sousa</p> <p>Purpose: To evaluate the reduction in corneal neovascularization after chemoembolization with mitomycin C using OCT-A and confocal microscopy, the improvement in visual acuity, and whether there is toxicity to the keratocytes and endothelial cells adjacent to the vessels subjected to chemoembolization, changes in corneal thickness and epithelium after the procedure, a decrease in the flow of red blood cells in the vascular trunk and its branches (afferent and efferent) and a decrease in the quantity of lipid cells.</p> <p>Methods: Patients with corneal neovascularization, of any etiology, superficial or deep, who have a main vascular trunk will be recruited for the treatment of these pathological vessels. Patients will undergo pre-operative and post-operative complete ophthalmological examination, Confocal Microscopy and anterior segment OCT during the study. Intravascular chemoembolization with Mitomycin C (0.4 mg/mL) will be performed in the largest corneal vessel near the limbus with sufficient retrograde hydrostatic force to fill the efferent and afferent vessels. The measurement of neovascularization will be performed through photographs and AngioOCT to determine the change in the extent, centricity, and density of neovascularization after chemoembolization.</p> <p>Results: Among the expected results and benefits will be the availability of complete and detailed ophthalmic examinations and monitoring by a cornea specialist, as well as the possibility of an alternative treatment for corneal neovascularization by taking part in the research, participants will be contributing to a better understanding of a promising treatment that they and other patients may benefit from in the future.</p> <p>Conclusion: The use of intravascular chemoembolization with Mitomycin-C should serve as a promising alternative for the treatment of patients with corneal neovascularization, by evaluating the improvement or regression of corneal neovascularization, the improvement in visual acuity, a decrease in the flow of red blood cells in the vascular trunk and its branches (afferent and efferent) and a decrease in the quantity of lipid cells after the use of intravascular chemoembolization with Mitomycin-C.</p> <p>Keywords: Corneal neovascularization, Mitomycin-C, Intravascular Chemoembolization</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(CO) CORNEA AND EXTERNAL DISEASE</p>	<p>33. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Carolina Ferreira Huang R3</p> <p>e-mail: carolinafhuang@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 5724519</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Accuracy of clinical diagnosis of infectious keratitis among physicians</p> <p>Author and Co-authors: Carolina Ferreira Huang, Camila Kase, Luis Filipe Nakayama, Denise de Freitas</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'</p> <p>POSTER</p>	<p>Purpose: Infectious keratitis is a sight-threatening eye condition with epidemic levels in some regions, demanding urgent attention. The diagnostic gold standard, corneal scraping cultures and stains, often takes days or weeks, delaying treatment. This diagnostic delay is exacerbated in resource-limited areas, where culture availability is scarce. Consequently, treatment often relies on empirical approaches with uncertain diagnostic accuracy. This study aims to evaluate the accuracy of infectious keratitis diagnosis using photographs and patient history, bridging the diagnostic gap for more timely and effective interventions</p>
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	<p>Methods: We retrospectively analyzed 49 anterior biomicroscopy photographs from patients treated at the UNIFESP Corneal Division and cross-referenced these images with data from the UNIFESP Microbiology Laboratory, which included culture results. We presented these images in an online questionnaire, with each case undergoing two evaluations: first, with only the photograph for diagnosis, and second, with accompanying demographic and clinical details. Evaluators were categorized by expertise. Statistical analyses were conducted using Python 3.10.0, utilizing independent two-tailed T-tests and one-way ANOVA to compare groups. The significance level was set at 0.05</p>
<p>Deadline: 11/2023</p>	<p>Results: Out of the 49 patients in the dataset, 28 (57.1%) had bacterial infection, 12 (24.5%) were fungal, and 9 (18.4%) were due to acanthamoeba infections. The diagnostic accuracy did not significantly differ among the evaluators, with cornea specialists at 48% (SD 0.04), ophthalmology residents at 46% (SD 0.06), and cornea fellows at 48% (SD 0.01). In 64% of cases, evaluators changed their initial diagnosis upon reevaluation. We examined the impact of fatigue by comparing accuracy across quartiles, but no significant differences were found (P=0.25). When evaluating images alone, accuracy was 58% (SD 0.23), while considering both images and clinical details resulted in lower accuracy at 36%</p>
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	<p>Conclusion: Our study underscores the diagnostic hurdles faced in infectious keratitis. Notably, we are the first that include acanthamoeba diagnosis, revealing a lower accuracy compared to prior studies. These results highlight the pressing need for novel, more cost-effective diagnostic approaches to enhance accuracy, especially given the elevated cost and limited accessibility of corneal scraping cultures.</p> <p>Keywords: Infectious keratitis, diagnosis accuracy</p>

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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECION</p>	<p>5. ABSTRACT (REQUIRED):</p> <p>Title: Evaluation of the culture positivity of Acanthamoeba in contact lenses, lens cases, lens cases solutions and plungers as potentials sources for Acanthamoeba keratitis investigation</p> <p>Author and Co-authors: Glauco Sérgio Avelino de Aquino, Mylena C de Souza Barsch, Larissa Fagundes Pinto, Maria Cecília Z. Yu, Talita Trevizani Rocchetti, Viviane Peracini Sant'Ana, Ana Luisa Hofling-LimaDenise de Freitas</p> <p>Purpose: To investigate the culture positivity of Acanthamoeba in contact lenses, lens cases, lens cases solutions, and plungers to determine whether these would be potential sources for Acanthamoeba investigation in patients suspected of Acanthamoeba keratitis.</p> <p>Methods: Scleral contact lenses (ScCL), non-scleral contact lenses (NScCL), lens cases, lens cases solutions, plungers, and cornea scrapings collected from patients suspected of Acanthamoeba keratitis (AK) underwent culture. The culture was carried out in 1.5% non-nutrient agar with a drop of heat-inactivated Escherichia coli (DH5a). Contact lenses were deposited onto the agar with an optical zone upwards, and the lens cases and plungers were washed with sterile phosphate-buffered saline (PBS) which was also placed in agar. Any additional solution stored in the case was also cultured. The samples were incubated at 28°C to 30°C for 20 days, and the cultures were checked for positivity through optical microscopy.</p> <p>Results: Data of 724 cultures from 279 patients (173 females and 106 males, average age of 34 years) collected between July 1988 and April 2022 were analyzed. From the total, 400 were contact lenses and paraphernalia (338 NScCL, 14 ScCL, 13 lens cases, 29 lens cases solutions, and 6 plungers), and 324 were corneal scraping. We observed positive cultures in 31.4% of NScCL, 35.8% of ScCL, 46.2% of the lens case, 41.4% of the lens cases solutions, 16.7% of plungers, and 26.3% of corneal cultures (figure 1). Of these, 22.3% were positive for both cornea and contact lenses/paraphernalia, 46.2% were negative for both, 14.7% were negative for contact lenses/paraphernalia and positive for cornea scraping, and 17% were positive for contact lenses/paraphernalia and negative for cornea scraping (figure 2).</p> <p>Conclusion: The present study suggests that the culture of contact lenses and paraphernalia may be helpful to further investigate Acanthamoeba keratitis since it revealed a high culture positivity for Acanthamoeba and was determinant to detect Acanthamoeba in almost 17% of the cornea scraping negative culture.</p> <p>Keywords: Acanthamoeba, keratitis, contact lens</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(CO) CORNEA AND EXTERNAL DISEASE</p>	<p>35. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Guilherme Niciunovas R3</p> <p>e-mail: GUI_NICK_18@HOTMAIL.COM</p> <p>Advisor:</p> <p>CEP Number: 0843/2017</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Seasonal trending of Acanthamoeba keratitis in a reference service</p> <p>Author and Co-authors: Guilherme Niciunovas, Celso de Souza Dias Júnior, Maria Cecília Zorat Yu, Flávio Eduardo Hirai, Luciana Lopes Rocha, Larissa Fagundes</p> <p>Purpose: Acanthamoeba keratitis is a severe corneal infection that was first described in 1974.¹ It is caused by a ubiquitous, free-living protozoan with an increasing incidence in the last decades.² Evidences suggest that the contamination of the water source associated with the inappropriate use of contact lenses, especially soft ones, is the main risk factor related to this infection.³ Several studies have demonstrated a seasonal variation in the incidence of keratitis due to Acanthamoeba related to the increased concentration of free-living Acanthamoeba in water during the warmer seasons,⁴ however in other studies this was not reported.⁵ The identification of seasonality in Acanthamoeba keratitis could allow the development of preventive actions against this serious infection, in addition to better planning of the use of public financial resources since the affected patients often need constant outpatient visits and eventually some procedures such as microbiology exams, histopathological examination and even corneal transplantation.</p> <p>Methods: Retrospective study, with data collection from LOFT, UNIFESP. After analyzing the results of microbiology tests performed from patient corneas, the positive results for AK from January 2000 to December 2022 were considered. Demographic data (sex and age) and date of collection of the test were analyzed. For patients with more than one positive result for the same eye, only the first test was considered. A comparison of stratified data was performed to identify seasonality over the years, months, weeks and also by seasons of the year. To test whether there was a seasonal trend in the sample, a linear regression model was constructed with the variables and the value of $p < 0.05$ was considered statistically significant.</p> <p>Results: Among the 3.656 tests requested for Acanthamoeba, 702 had a positive result (19.2% of positivity), among which 561 were obtained from a corneal scrape (141 tests were excluded). The 561 positive tests represent 475 eyes (since some eyes were collected more than once) and 17 patients presented bilateral condition, totaling 458 patients. Regarding gender, 298 (65.0%) were female and 160 (35.0%) were male. The age varied between 13 to 84 years old with an average of 34.37 years and the following frequency: 13-24 yo (132), 25-34 yo (163), 35-44 yo (82), 45-54 yo (38), 55-64 yo (19), 65-74 yo (16), 75-84 yo (08). Analysis revealed an uneven distribution of AK with peaks in January (35 cases), May (35 cases) and August (37 cases).</p> <p>Conclusion: It was not possible to establish a seasonality pattern for Acanthamoeba keratitis.</p> <p>Keywords: Acanthamoeba keratitis; Acanthamoeba ulcer</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(CO) CORNEA AND EXTERNAL DISEASE</p>	<p>36. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: João Victor Borges Gomes R3</p> <p>e-mail: gomes.jvb@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 4038002</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: CLINICAL ASPECTS AND QUALITY OF LIFE OF PATIENTS WITH OCULAR ALLERGY</p> <p>Author and Co-authors: GOMES, J.V.B, MARINO, L.M., WANDALSEN, G.F., SANTOS, M.S.</p> <p>Purpose: Ocular allergy is a term used to describe a heterogeneous group of pathologies affecting the ocular surface. They are typically associated with hypersensitivity reactions. The most prevalent clinical forms include allergic conjunctivitis (AC), either in its seasonal or perennial form, and keratoconjunctivitis (KC), whether it is vernal (VKC) or atopic (AKC). The diagnosis is clinical and other allergic conditions may be associated. The aim of this study is to describe clinical aspects involved in both forms and assess the impact of the disease on quality of life.</p> <p>Methods: This study was conducted in two phases. The first phase involved assessing the quality of life of 41 patients who were under follow-up care in the Ocular Surface Diseases and Cornea and/or Allergology departments at the Federal University of São Paulo through the administration of the EQ-5D questionnaire. In the second phase, a detailed ophthalmological and allergological assessment was performed. Questionnaire results were analyzed using the paired T-Student test.</p> <p>Results: Seventy-three percent of patients had clinical forms related to keratoconjunctivitis, with the majority being male. The mean age was 13 years in the KC group and 12 years in the AC group. Pruritus, redness of the eye and photophobia were reported by all patients. Clinical signs commonly found in the KC group included keratitis, shield ulcers, limbal involvement and giant papillary reaction, while such findings were not present in the AC group. Allergological evaluation demonstrated an association with other atopic conditions, especially allergic rhinitis and atopic dermatitis. As for treatment, the use of lubricants and antiallergics was present in both groups. In contrast, the use of topical and/or systemic immunosuppressants, immunobiologics, and the need for surgical procedures were more prevalent in the CK group. Finally, patients in both groups reported a significant reduction in quality of life during periods of symptom exacerbation.</p> <p>Conclusion: Disease control is essential, as periods of exacerbation lead to a reduction in quality of life in both forms of ocular allergy, regardless of the medications in use and the treatments already administered. Ophthalmological and allergological evaluations are crucial in the care of these patients.</p> <p>Keywords: Allergic conjunctivitis; Allergic keratoconjunctivitis; Ocular allergy; Quality of life</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED):</p> <p>Title: Confocal Microscopy and Optical Coherence Tomography Evaluation of Patients with Acute Corneal Hidropsy Submitted to Intrastromal blood Injection or Intracameral C3F8 injection</p> <p>Author and Co-authors: Klaus Anton Tyrrasch, Ítalo Pena de Oliveira, Lucas Baldissera Tochetto, Tais Hitomi Wakamatsu, Luiz Guilherme Ito da Cruz, Jose Alvaro Pereira Gomes</p> <p>Purpose: To compare the different aspects of confocal microscopy and optical coherence tomography in patients submitted to intracameral C3F8 injection or intrastromal blood Injection.</p> <p>Methods: Randomized prospective study. Patients with acute corneal hidropsy will be submitted to intracameral C3F8 injection or intrastromal blood Injection and the follow-up will be based on photodocumentation, confocal microscopy and optical coherence tomography.</p> <p>Results: In progress</p> <p>Conclusion: In progress</p> <p>Keywords: Hidropsy, Confocal, Tomography</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Cytological and biochemical evaluation of conjunctival secretion during the treatment of Meibomian Gland Dysfunction by JettPlasma.</p> <p>Author and Co-authors: Chiara Luana Reinert da Silva, Tulio Ruiz Eschiapati, Vanessa Favero Demeda, José Alvaro Pereira Gomes.</p> <p>Purpose: The aim of this study is evaluate the cytological and biochemical profile of conjunctival secretion during the treatment of Meibomian Gland Dysfunction by JettPlasma.</p> <p>Methods: A prospective interventional study will be conducted on 10 patients which has follow up on The Corneal and External Eye Disease Sector of Ophthalmology Department of UNIFESP or Hospital São Paulo's ophthalmology emergency with symptoms of dry eye disease or eye irritation. The inclusion criteria will be age older than 18 years old, Meibomian Gland dysfunction with previous treatment, OSDI score greater than 12 and DEQ-5 score greater than 5, Meibomian secretion quality better higher than 8 and expressibility 2 or 3. Exclusion criteria will be patients using Pacemaker, Holter monitor or another use of electric device, metal implant near the treated area, epilepsy, pregnancy, oncology disease, skin disease or inflammation, inflammatory bowel disease, local anesthetic allergy. It will be made an ophthalmological exam with visual acuity test, tear breakup time, conjunctival hyperemia evaluation, Meibomian Gland evaluator, IDRA, Schirmer Test, InflammaDry. After the application of Jettplasma during 2 minutes with intensity 4 on Superior and Inferior Meibomius Gland orifices, the resulted secretion will be collected and immediately fixed with Absolute Alcohol and Alcohol-Formalin Cell Block than the Pathology Service of EPM-UNIFESP will evaluate the collected material.</p> <p>Results: In Progress</p> <p>Conclusion: In Progress</p> <p>Keywords: JettPlasma; Dry eye; Meibomian Gland Disease</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(CO) CORNEA AND EXTERNAL DISEASE</p>	<p>39. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Mirella Millena Carmo De Andrade R4</p> <p>e-mail: m.mirellaandrade@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 1269/2018 / CAAE: 01006718.2.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Efficacy and safety of bovine L-hydro pericardium on primary pterygium treatment</p> <p>Author and Co-authors: Mirella Millena Carmo de Andrade, Júlia Brandão de Paiva Teixeira Custódio, Luciene Barbosa de Sousa</p> <p>Purpose: The purpose of this study was to evaluate the safety and efficacy of the bovine L-Hydro pericardium as an aid to resurfacing in the treatment of the primary pterygium.</p> <p>Methods: This clinical trial aims to compare subgroups of patients selected for surgical treatment of primary pterygium. The study will take place from 2021 to 2023, with 30 participants enrolled. Participants were randomly assigned to undergo conjunctival autotransplantation or a bovine pericardium membrane. The participants were 18 years or older and had been diagnosed with primary pterygium. We excluded patients with relapsed pterygium, history of ocular surface surgery or presence of symblepharon. Data was collected before the procedure, including visual acuity, biomicroscopic examination, and funduscopy discoveries. The surgical procedure involved excision of a pterygium, removal of the tenon's capsule, and application of a pericardium graft or conjunctival tissue. The bovine pericardium L-hydro was preserved using a sterile saline solution. Follow-up visits were scheduled for the first, seventh, and fifteenth days post-procedure, followed by monthly visits until the eighth month. Patients were administered ciprofloxacin, prednisolone acetate eye drops, and lubricating drops. The primary effectiveness measure was the presence of recurrence. Patients underwent ophthalmological examinations, including assessments of visual acuity, anterior biomicroscopy, intraocular pressure, corneal and graft epithelialization time, degree of hyperemia, and symptoms related to foreign body sensation and pain.</p> <p>Results: Until now, 20 individuals were operated on. 13 received bovine pericardium, 7 were controls. The demographic profile shows no significant differences in sex, age, race, profession, and pterygium degree. Four pericardium patients developed granulomas and one dellen after two months of follow-up, while one control patient and two pericardium patients recurred.</p> <p>Conclusion: Bovine pericardium can be considered for pterygium surgery, but further studies with more samples are needed to assess the efficacy and safety.</p> <p>Keywords: Pterygium; Bovine L-Hydro pericardium</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Clinical outcome and confocal microscopy evaluation in patients with infectious keratitis treated with Rose Bengal Photodynamic Antimicrobial Therapy (RD-PDAT): a Pilot Clinical Study</p> <p>Author and Co-authors: Tabuse AM, Kase C, Rocchetti TT, Yu MCZ, Wakamatsu T, Campos MSQC, Freitas D, Hofling-Lima AL</p> <p>Purpose: To determine the clinical outcomes and differences in microscopy confocal examination in patients treated with RB-PDAT for infectious keratitis.</p> <p>Methods: Patients with infectious keratitis from April 2023 to September 2023 of the Federal University of São Paulo were enrolled in the study. These individuals underwent clinical examinations and confocal microscopy assessments at multiple time points, including baseline, three weeks after the procedure, and subsequently at 3 months, 6 months, and 12 months post-intervention. RB-PDAT is performed by applying a solution of Rose Bengal (0.1% RB in BSS) to the de-epithelized cornea for 30 minutes followed by irradiation with a 6mW/cm² custom-made green LED source for 15 minutes (5.4J/cm²).</p> <p>Results: Thirteen patients were recruited for therapy. The mean age of the study population was 51± 20. In all, 54% were male. The main risk factors included contact lens wear (61.5%), ocular trauma (15.4%), and ocular surface disease (7.7%). Cultures were positive for Acanthamoeba (30.7%), fungi (23.1%), and bacteria (23.1%). In two patients the organism was not identified (15,4%). Clinical resolution was achieved in 53.9% of patients on average, with 23.1% requiring therapeutic penetrating keratoplasties and 23.1% still treating with standard medical therapy.</p> <p>Conclusion: RB-PDAT is a potential adjunct therapy for infectious keratitis that may reduce the need for a therapeutic penetrating keratoplasty.</p> <p>Keywords: corneal cross-linking, keratitis, acanthamoeba, fungi</p>
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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(RS) REFRACTIVE SURGERY</p>	<p>41. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Lucas de Oliveira Marques Fellow</p> <p>e-mail: lucasoliveiramarqueslom@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 4140040</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>CELL THERAPY</p>	<p>5. ABSTRACT (REQUIRED): Title: Title: Photorefractive keratectomy associated with simultaneous accelerated crosslinking in patients with keratoconus: evaluation of efficacy and safety in a Brazilian center</p> <p>Author and Co-authors: Bernardo Kaplan Moscovici, MD1 Daniel Diniz, MD1 Lucas de Oliveira Marques, MD1 Mauro de Silveira de Queiroz Campos, MD1, PHD</p> <p>Purpose: We designed a prospective study to evaluate safety and efficacy of photorefractive keratectomy (PRK) associated with simultaneous crosslinking in patients with keratoconus. This technique is previously described in the literature, although little used, and advocates disease stabilization associated with improvement in visual acuity.</p> <p>Methods: The study is a prospective, non-randomized, single-center study that will select patients with keratoconus from the ophthalmology refractive outpatient unit of Universidade Federal de Sao Paulo, in São Paulo, Brazil, after approval from institution Ethics and Research Committee. After applying the agreement form, candidates will undergo the PRK with simultaneous accelerated CXL in the same service. Technique PRK will be performed with manual corneal de-epithelization, followed by topography-guided ablation with a Wavelight EX500 excimer laser (WaveLight®, Alcon Laboratories, Forth Worth, USA) not exceeding more than 50 microns, with the primary aim of correcting high-order corneal aberrations. Optical zone will be set to 5.0 mm. Therefore, accelerated CLX with the association of 0.1% riboflavin and methylcellulose, every 2 minutes for 20 minutes (immersion) followed by continuous exposure to UVA light radiation (365nm) with an irradiance of 9 mW/cm² for 10 minutes (fluence: 5.4 J/cm²). Follow-up evaluations will be held on the first day after surgery and in the following months: 1st, 3rd, 6th, 12th, 18th. Dynamic refraction, visual acuity with and without correction and corneal examination with pentacam will be evaluated.</p> <p>Results: In progress</p> <p>Conclusion: In progress</p> <p>Keywords: keratoconus, photorefractive keratectomy, crosslinking</p>
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Statistical Analysis of the Effectiveness of the Biometric Formula Used to Calculate the Intraocular Lens in Children with Congenital Cataract between 2019 and 2023.</p> <p>Author and Co-authors: Rebeca de Araujo Medeiros Ana Paula Silverio Simone Nakayama</p> <p>Purpose: INTRODUCTION Congenital cataract is an important cause of unilateral or even bilateral deprivation amblyopia. Early diagnosis and treatment are crucial for avoiding severe amblyopia. The minimum age for intraocular lens (IOL) implantation is still a very controversial subject in the literature. Once it has been decided to implant the lens, we must calculate its dioptric power for each patient, which is an issue that remains one of the biggest challenges in congenital cataract surgery. To determine the grade of the IOL, the biometric calculation of axial length (AL) and keratometry (K) must be considered. Based on the values of K and AL, several formulas are used to calculate the IOL, however, it is noteworthy that there is no consensus in the field of ophthalmology on which one should be used, since biometric formulas were created for adult patients who mostly undergo senile cataract surgery, the calculation of the IOL in childhood cataracts or congenital cataracts may be inaccurate. GOAL This study aims to evaluate the preoperative biometric target and compare it with the postoperative refraction in children undergoing congenital cataract surgery at Hospital São Paulo, in the Ophthalmology and Visual Sciences Service at UNIFESP. In this way, we will evaluate whether the formula currently used in the congenital cataract outpatient clinic of the Escola Paulista de Medicina to calculate the IOL is effective in achieving the pre-established target refraction</p> <p>Methods: METHODOLOGY The case selection criterion was the performance of congenital cataract correction surgery at HSP, with IOL implantation between January 2019 and January 2023. For each patient, preoperative biometry, preoperative axial length and 1 month after surgery, keratometry, the formula chosen for biometric choice, the type of lens chosen, and the post-operative refractive error (with 1 and 2 months post-operatively) were recorded.</p> <p>Results: In progress</p> <p>Conclusion: In progress</p> <p>Keywords: Congenital cataracts; IOL implantation; ocular biometry; pos operative refraction</p>
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<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	

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(CA) CATARACT

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Deadline: 11/2023

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Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

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90cm x 120cm

43. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Clístenes Stênio Lima De Medeiros R4

e-mail: clistenes.stenio@gmail.com

Advisor:

CEP Number: 4143030

5. ABSTRACT (REQUIRED):

Title: Multiple Rotations for Crystalline Nucleus Dissection in Cataract Surgery

Author and Co-authors: Flávio Eduardo Hirai Clístenes Stênio Lima de Medeiros
Richard Yudi Hida José de Mello Rosatelli Neto Bernardo Kaplan Moscovici

Purpose: To describe a new technique, called "SPIN," to facilitate the release of the epinucleus and cortex from the crystalline lens, thereby simplifying the aspiration of both and reducing surgical time and the risk of complications in cataract surgery.

Methods: A randomized clinical trial involving 96 eyes of 48 patients undergoing cataract surgery. One eye will be allocated to the SPIN group, and the other to the control group. The primary outcome will be surgical time, and the secondary outcome will be the number of posterior capsule ruptures.

Results: In progress

Conclusion: In progress

Keywords: Cataract, Cataract extraction, Ophthalmologic surgical procedures.

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Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

44. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Palloma Santiago Prates Pessoa PIBIC

e-mail: palloma48santiago@gmail.com

Advisor: Mauro Campos

CEP Number: 1371327

5. ABSTRACT (REQUIRED):

Title: Effects of Electroporation on Acanthamoeba keratitis

Author and Co-authors: Palloma Santiago Prates Pessoa Raphael Barcelos Larissa Fagundes Pinto Denise de Freitas Mauro Silveira de Queiroz Campos

Purpose: To investigate whether the electroceutical treatment will be able to become infeasible Acanthamoeba cysts and trophozoites in vitro.

Methods: In this study, the isolate Acanthamoeba polyphaga (ATCC®30461TM) was used, treated from a corneal scraping from a case of AK in the United States. Trophozoites and cysts were counted in a Neubauer Chamber, the concentration was adjusted to obtain an initial inoculum of 100,000 amoebae/mL in the electroporation buffer. Cysts and trophozoites were exposed to an electric field with intensities of 2000 volts and 2500 volts. The in vitro model was divided into the following groups: cysts and trophozoites controls (without electroporation), Group 1 cysts and trophozoites (electroporated at 2000 volts), group 2 cysts and trophozoites (electroporated at 2500 volts). The procedure was performed in duplicate. Permeabilization was analyzed by fluorescence microscopy using propidium iodide (PI) associated with the fluorescence dye 4',6-diamidino-2-phenylindole dihydrochloride (DAPI, 1:1000). Images were acquired on a Nikon Eclipse TI-U microscope using an excitation wavelength of 488/617 for PI and 340/488 nm for DAPI, and analyzed using Image J.

Results: The results obtained demonstrate that permeabilization at 2000 volts is 55% for trophozoites and 55% for cysts ($p < 0.05$), while at 2500 volts it is 59% for trophozoites and 59% for cysts ($p < 0.05$).

Conclusion: Both voltages tested were effective for both cysts and trophozoites, given that the percentages of permeabilization were close, with no statistical significance between them, only with the control groups. Therefore, lower voltages will be tested to reach the same potential obtained, as a future possibility of alternative treatment for AK.

Keywords: Anthamoeba, Acanthamoeba keratitis, Electroporation, Therapie, Eye.

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(UV) UVEITIS

Deadline: 11/2023

FORMAT:

Abstract should contain:

Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

45. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Stefano Neto Jai Hyun PG1

e-mail: stechoi91@hotmail.com

Advisor: Caio Regatieri

CEP Number: 4007001

5. ABSTRACT (REQUIRED):

Title: Teleophthalmology Service Framework

Author and Co-authors: Stefano Neto Jai Hyun Choi, Fernando Malerbi Korn, Vagner Rogério dos Santos, Caio Vinicius Saito Regatieri

Purpose: Develop a Teleophthalmology Service Framework to guide the Department of Ophthalmology and Visual Sciences to implement Teleophthalmology Services.

Methods: This study was approved by the Ethical and Research Committee of UNIFESP with an approval letter signed by the chief of Ophthalmology and Visual Sciences of UNIFESP. Using the Methodological Guide of Programs and Services in Telehealth and the Time-Driven Activity-Based Costing (TDABC), a framework was developed to implement teleophthalmology services. The Methodological Guide was originated by the Brazilian Government in partnership with Oswaldo Cruz Hospital. This Guide contains the step by step of how to implement telehealth services in SUS (Sistema Único de Saúde), but it does not have the financial part of the service. Therefore, the TDABC, a micro costing method, was used to complement the Guide to develop the framework of this study

Results: A 12-Steps Teleophthalmology Service Framework was developed to guide managers, health professionals and/or politicians to implement and monitor future teleophthalmology services. The twelve steps are: Identify the patient health problem and its context, Choose the solution/technology, Legal and Ethical Aspects of Teleophthalmology, Map of the processes/activities, Identify the main resources used in each activity, Estimate the cost and the capacity time of each resource to calculate the Capacity Cost Rate (CCR-R\$/h), Calculate the total cost of the teleophthalmology service, Analyze the cost data, Acceptability of the service, Auditing and Monitoring, Select the indicators, Teleophthalmology Service Framework.

Conclusion: The Framework is important for those who want to implement new services of Teleophthalmology. It can guide them not only to implement, but to monitor the services during their application. Monitoring the services will allow their managers to analyze collected data and make decisions to improve them. This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001

Keywords: Telehealth, Telemedicine, Teleophthalmology, Ophthalmology.

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(TR) TRAUMA</p>	<p>46. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Leonardo Ajuz Do Prado Oliveira R1</p> <p>e-mail: leonardoajuz.6066@gmail.com</p> <p>Advisor:</p> <p>CEP Number: no needed</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Evolution of hidden retained intraocular foreign body</p> <p>Author and Co-authors: Leonardo A. P. Oliveira, Ana C. Bonini, Sung E. S. Watanabe</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	<p>Purpose: Penetrating ocular trauma is a challenging clinical scenario, many factors count for a good prognosis. Initial care and surgical management are relevant to minimize possible complications and obtain better visual recovery. The presence of an intraocular foreign body can result in a wide range of intraocular pathology and visual outcomes based on the mechanism of injury, type of foreign body, and subsequent complications. The purpose of the study is to report the case of a patient with conservative treatment for retained intraocular foreign body using imaging and electrophysiology.</p>
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	<p>Methods: Review of medical records.</p> <p>Results: A 42-year-old male had a penetrating ocular trauma with a metal (copper) wire in the right eye and anterior segment reconstruction after 02 days of trauma in 2020. He evolved with a rhegmatogenous retinal detachment in the same eye in 2022 and it was surgically treated with retinopexy and scleral buckle. During one of his appointments, he presented with best corrected visual acuity (BCVA) in both eyes of 20/20, and during fundus examination, a linear foreign body was detected in the right eye. Ultrasound biomicroscopy revealed a linear image suggestive of an intraocular foreign body close to previous iridectomy area at the 9 o'clock meridian. This foreign body is related to his previous penetrating ocular trauma 2 years ago. Due to the patient's BVCA of 20/20 in the affected eye, conservative management and regular follow-up with full-field electroretinogram (ERG) to monitor toxicity was chosen as a treatment method. Initial ERG showed mild reduced amplitudes for both rods and cones in the affected eye compared with the fellow eye and was attributed to sequelae of rhegmatogenous retinal detachment. The subsequent ERG, after 6 months, showed stable scotopic and photopic responses. The patient keeps close follow-up at our service and conservative measures were adopted.</p>
<p>Deadline: 11/2023</p>	<p>Conclusion: : Penetrating ocular trauma can present with a broad spectrum of findings, in this particular case, even though the first imaging evaluation showed no signs of intraocular foreign body, later examination during follow-up showed its presence. Visual electrophysiological assessment during follow-up has helped to diagnose the possible retinal toxicity and, if needed, surgical removal can be suggested. Financial support: None.</p>
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	<p>Keywords: penetrating ocular trauma, intraocular foreign body, electroretinogram</p>

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(TR) TRAUMA</p>	<p>47. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Pedro Leite Costa Franco R2</p> <p>e-mail: pedro.lcf@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 0060/2018</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Intracameral Moxifloxacin For Prophylaxis Of Open Globe Endophthalmitis - Pilot Study</p> <p>Author and Co-authors: Pedro Leite Costa Franco, Vinicius Campos Bergamo, Luis Filipe Nakayama, Somaia Mitne Teixeira, Mauricio Maia</p> <p>Purpose: To evaluate the use of intracameral Moxifloxacin 0.5% (Vigamox®) as prophylaxis in cases of endophthalmitis after open ocular trauma.</p> <p>Methods: Patients over 18 years of age, victims of open ocular trauma, will be included in the study, unless endophthalmitis is already present in the admission. Patients will then be submitted to anterior segment reconstruction, followed by instillation of intracameral or topical moxifloxacin, according to previous randomization. Aqueous humour samples will be collected in the beginning of the surgery and spread along various culture mediums for posterior analysis. All patients will be followed post-operatively and evaluated to detect any signs of post-trauma endophthalmitis. The primary endpoint will be comparing the rate of endophthalmitis in patients submitted to intracameral versus topical moxifloxacin after surgery. In addition, more data will be collected for posterior analysis, such as age, gender, time until hospital admission, initial and final visual acuity, trauma mechanism, presence of foreign body and laceration zone. The statistical analysis will be performed on SPSS (version 18.0 for Windows). Kolmogorov-Smirnov test will be utilized to compare samples. Descriptive analysis will be used for group delineation.</p> <p>Results: Data collection in progress. We expect to find, after this study, that intracameral instillation of moxifloxacin after open globe trauma anterior segment reconstruction surgery will be more effective as post-traumatic endophthalmitis prevention when we compare to its topical administration.</p> <p>Conclusion: Endophthalmitis is a rare, yet severe complication of open globe trauma, capable of leading to irreversible vision loss, and there is no consensus over the literature on what is the best possible antibiotic prophylaxis regimen in order to prevent it. We hope, with this study, to provide new information on this topic, as well as to gather rich data on open ocular trauma, its epidemiology and repercussions, bringing new light to such an important theme.</p> <p>Keywords: intracameral moxifloxacin; endophthalmitis; open globe; open ocular trauma</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Development of a prime editing strategy to treat mutations in the Crumbs homologue-1 (CRB1) gene</p> <p>Author and Co-authors: Bruna L. da Costa, Alexander A. Sousa, Yi-Ting Tsai, Yao Li, Irene H. Maumenee, David R. Liu, Stephen H. Tsang, Peter M.J. Quinn</p> <p>Purpose: Mutations in Crumbs homologue-1 (CRB1) gene cause chronic and disabling autosomal recessive retinal dystrophies, including Leber congenital amaurosis 8 (LCA8) and retinitis pigmentosa 12 (RP12). Currently, there are approximately 80,000 CRB1 patients worldwide and there is no available treatment to date. The human retina contains three major CRB1 isoforms, CRB1-A, CRB1-B and CRB1-C and mouse retina has two CRB1 isoforms, CRB1-A and CRB1-B. CRB1-A and CRB1-B have predominately cell-type specific expression making the choice of gene augmentation strategy currently unclear. Gene editing with prime editing (PE) may be a viable alternative for the amelioration of CRB1 associated retinal degenerations.</p> <p>Methods: To begin optimizing PE for correction of CRB1 mutations, 30 combinations of pegRNA and nicking sgRNA design were tested per mutation on the corresponding CRB1 patient iPSC lines using nucleofection. Combinations showing efficient editing were taken forward for further optimization. Editing efficiency of different PE designs was evaluated by NGS or Sanger sequencing followed by ICE analysis. Currently, we are adapting the PE to a virus system, in which we have optimized promoters to highly express PE machinery in postmitotic retinal cells, using human iPSC-derived retinal organoids as a screening tool.</p> <p>Results: Based on our analysis of the CRB1 LOVD database and our cohort of CRB1 patient iPSC lines we chose to initially develop prime editing for p.(Cys948Tyr) (Most prevalent CRB1 mutation) and p.(Gly1103Arg) (8th most prevalent CRB1 mutation) mutations. We found that CRB1 patient iPSC lines were amenable to prime editing. With editing efficiencies as high as 72% dependent on the combination of pegRNA (primer binding site (PBS) and reverse transcription template (RTT) length) and nicking sgRNA for a particular mutation. This system is now being modified to a viral system, which can successfully transduce retinal organoids in photoreceptor cells and/or Müller glial cells.</p> <p>Conclusion: Prime editing is amenable for the correction of CRB1 patient mutations and achieves high editing efficiencies dependent on optimization of the pegRNA and the nicking site used. Further, we have developed a viral system, which we are adapting for our PE strategy to treat our patient mutations. Together this work provides a platform for the testing of CRB1 therapeutic editing in CRB1 patient iPSC-derived retinal organoid disease models.</p> <p>Keywords: CRB1, Retinal Degeneration, Prime Editing, iPSC-derived Retinal Organoid.</p>
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(TU) TUMORS AND PATHOLOGY

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Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

49. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Carolina Rodrigues Cunha Guimarães Drumond R1

e-mail: carolina.drumond@unifesp.br

Advisor:

CEP Number: 39401347

5. ABSTRACT (REQUIRED):

Title: VON HIPPEL-LINDAU: can you diagnose this condition on fundoscopy?

Author and Co-authors: Carolina Rodrigues Cunha Guimarães Drumond, Pedro Leite Costa Franco, João Gabriel Alexander, Melina Correia Morales, Alléxya Affonso.

Purpose: To report an clinically enriching case of Von Hippel-Lindau.

Methods: Review of medical records.

Results: A 28-year-old female was admitted to the emergency room due to worsening in sight of the right eye which she stated as having been present for two months. Also, she reported chest pain, headache and sweating for two weeks. She denied any past medical or ophthalmological history. Her father and brother both had history of brain tumors. On admission, her best corrected visual acuity (BCVA) was counting fingers at one meter in her right eye (OD) and 20/25 in her left eye (OS). Fundus examination of the OD revealed extensive fibrovascular proliferation in the macular and peripapillary area, associated with tractional retinal detachment. In the OS, there was a round vascular lesion in the superior peripapillary region, along with similar smaller lesions distal to the inferior temporal arcade and at periphery 360. Considering family history, hypothesis of Von Hippel-Lindau syndrome was then suggested, presenting with bilateral retinal hemangioblastomas. After three months follow-up, our team proposed a posterior pars plana vitrectomy of the right eye and laser photocoagulation of the peripheral lesions in the left eye, as well as genetic counseling and screening of her relatives.

Conclusion: Von Hippel-Lindau is a heritable autosomal dominant multisystem disease with high penetrance, the diagnosis is confirmed with a positive familial history, as seen in our case, and at least one VHL-related tumor, such as pheochromocytoma, retinal hemangioblastoma, central nervous system hemangioblastoma, endolymphatic sac tumor, renal cell carcinoma, paraganglioma or pancreatic neuroendocrine tumor.

Keywords: Von Hippel-Lindau; retina detach; ocular tumor; hemangioblastoma.

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(OR) ORBIT</p>	<p>50. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Matheus Ferreira Santos Da Cruz R1</p> <p>e-mail: matheusfscruz@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 1238010</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Optic Nerve Pilocytic Astrocytoma: a case report</p> <p>Author and Co-authors: Matheus Ferreira Santos da Cruz, Pedro Leite Costa Franco, Nasjla Saba da Silva, Patrícia Alessandra Dastoni, Paulo Gois Manso e Luiz Fernando Teixeira</p> <p>Purpose: To report an case of Optic Nerve Pilocytic Astrocytoma</p> <p>Methods: An 16-year-old woman from São Paulo presented to the orbit division at Hospital São Paulo with a history of progressive proptosis and low visual acuity in the right eye, which began 7 years before. When she arrived at the service, the patient already had the diagnosis at another institution, where chemotherapy was performed for 2 years, with improvements in visual acuity and visual field, but without improvements of the proptosis. She reports stability of the condition since then until May / 2022, when she came to our service, with a new increase in proptosis, worsening of visual acuity and an important associated psychological condition. She denied pathological and ocular history, as well as neurofibromatosis type 1. She denied perception of light in the right eye and visual acuity in the left eye was 20/20. On ectoscopy, she had non-pulsatile proptosis in the right eye, with increased retropulsion. Exophthalmometry: 28mm in the right eye and 14mm in the left eye. Ocular reflexes abolished in the right eye. Normal extrinsic motricity in both eyes. Biomicroscopy, tonometry, and gonioscopy findings were essentially normal in both eyes. In the fundus examination, the patient presented a pale optic disc, with no other changes in the right eye and normal exam in the left eye.</p> <p>Results: Optical coherence tomography (OCT) of the right eye showed a temporal and superior decrease in the layer of nerve fibers. The hypothesis of neoplastic, vascular and orbital malformations causes were considered and a cranium and orbit magnetic resonance imaging (MRI) was performed, which revealed axial exophthalmos in the right eye and a 4.0 cm x 2.0 cm x 1.5 cm mass with heterogeneous contrast uptake, filling the right orbital cavity, hypointense on T1 and hyperintense on T2. Considering the biopsychosocial aspect involved, the patient underwent combined neurosurgical and orbital surgery to excise the optic nerve with glioma, maintaining the eyeball. The histopathology revealed pilocytic astrocytoma (WHO Grade I) and the genetic study showed the presence of the KIAA1549-BRAF gene fusion. On follow up, after excision of tumor, the patient presented with significant improvement in proptosis, but with discreet adduction restriction movement and exotropia. In the MRI post operative showed considerable mass reduction.</p> <p>Conclusion: We report the case of a Optic Nerve Pilocytic Astrocytoma, a slow-growing glioma that affects typically children and young adults and can occur anywhere in the central nervous system. Surgical treatment is indicated in cases with severely impaired vision or disfigurement. Multidisciplinary approach should always be considered, taking into the patient's psychological and family aspects when making decisions, although the tumor had a benign histopathological pattern.</p> <p>Keywords: Optic nerve tumor, Pilocytic Astrocytoma, Orbit</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Analysis of the cases of infectious periorbital and orbital cellulitis admitted at the ophthalmology emergency department of Federal University of São Paulo</p> <p>Author and Co-authors: Pereira, LH, Teixeira, LF, Manso, PG, Noia, LC</p> <p>Purpose: To evaluate the epidemiology, clinic, diagnosis, therapeutic and outcomes of the patients that were admitted at Hospital São Paulo to treat periorbital and/or orbital infectious cellulitis .</p> <p>Methods: Retrospective analysis of medical records of patients admitted at Hospital São Paulo between November 2022 and November 2023. The adult (more than 18 years old) and pediatric population (18 years old or less) were analysed separately.</p> <p>Results: Twenty patients were treated for periorbital and/or orbital infectious cellulitis, confirmed by radiological assessment. Among the 13 adults, with an average age of 56. Most common etiologies were dacryocystitis (15%) and rhinosinusitis (15%). Symptoms included periorbital edema (92%), ocular mobility limitation (54%), and local pain (38%), with infections mostly on the right side (76%) and postseptal involvement (76%). All patients received parenteral antibiotics, often involving two classes (53%). Parenteral therapy lasted 8.83 days on average, with 41% transitioning to oral antibiotics, averaging 12.8 days for complete antibiotic therapy. Systemic corticosteroids were administered to 72%, and one patient had a subperiosteal abscess requiring surgery. For the pediatric cohort (7 patients, mean age 7.42 years), rhinosinusitis was the primary cause (75%). Symptoms included periorbital edema (100%), ocular mobility limitations (54%), and local pain (28%). Most patients (92%) had non-ophthalmological symptoms, with infections mostly on the left side (71%) and postseptal involvement (85%). All patients received parenteral antibiotics, primarily involving two classes (85%). Parenteral therapy lasted 8.87 days on average, with 85% transitioning to oral antibiotics for an average of 20 days. 85% received systemic corticosteroids, and three complications (subperiosteal abscess, orbital abscess, cerebral empyema) necessitated surgical intervention.</p> <p>Conclusion: Orbital cellulitis, a life-threatening condition, was examined in our study moltsy among adult patients. Although no definitive connection was established between initial conditions and outcomes, antibiotic therapy proved successful in treating the majority of patients, highlighting its efficacy as a primary treatment.</p> <p>Keywords: Orbital cellulitis, Periorbital cellulitis</p>
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2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

(EP) EPIDEMIOLOGY

3. THEME: (REQUIRED) Check one:

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Abstract should contain:

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Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

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90cm x 120cm

52. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Vinicius Oliveira Pesquero R3

e-mail: viniciuspesquero@gmail.com

Advisor:

CEP Number: 404000292

5. ABSTRACT (REQUIRED):

Title: Outpatient attendance casuistry and theoretical workload of an ophthalmology resident during the training period at the Paulista School of Medicine

Author and Co-authors: Vinicius Oliveira Pesquero and Luiz Fernando Teixeira

Purpose: Exposure to a diverse caseload, coupled with appropriate theoretical support, is undeniably pivotal for the development of diagnostic and therapeutic skills. Through interactions with a wide range of conditions, residents enhance their ability to recognize clinical patterns, refine differential reasoning, and improve their decision-making skills. Furthermore, the variety of cases contributes significantly to the acquisition of essential non-technical skills, such as effective communication and empathy. However, there is a lack of objective data in the national and international literature regarding the training of ophthalmology residents. This includes information about the profile of patients in the different ophthalmological areas and the workload of theoretical activities provided to physicians in training. Therefore, this study aims to comprehensively analyze the outpatient caseload of an ophthalmology resident at the Paulista School of Medicine over the course of their 3-year training period. Additionally, it investigates the allocated workload for theoretical activities.

Methods: Review of medical records from outpatient medical appointments conducted by a ophthalmology resident and assessment of the workload dedicated to theoretical activities during the training period

Results: In progress

Conclusion: In progress

Keywords: Ophthalmology; Medical Residency

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<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(PL) OCULOPLASTICS SURGERY</p>	<p>53. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Amanda Thum Welter R2</p> <p>e-mail: amandatwelter@gmail.com</p> <p>Advisor:</p> <p>CEP Number: 4038900</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: Analysis of eyelid tumors in young individuals in a reference oculoplastic service</p> <p>Author and Co-authors: Amanda Thum Welter and Tammy Hentona Osaki</p> <p>Purpose: Eyelid tumors are commonly encountered in medical practice, accounting for 5% to 10% of all skin tumors. The age of onset can vary and may affect individuals from young to elderly age groups, however, eyelid tumors are more frequently observed in patients over 60 years old. Benign tumors are more common, with the primary benign eyelid tumors being papilloma, and melanocytic nevus. Among malignant tumors, the most frequent ones are basal cell carcinoma, squamous cell carcinoma, and sebaceous carcinoma. This study aimed to conduct an analysis of eyelid tumors affecting young individuals (under 40 years of age) over a 3-year period at a reference oculoplastic service.</p> <p>Methods: Medical records of patients seen and who underwent surgical procedures at the Oculoplastic Department of Hospital São Paulo from January 2020 to September 2023, presenting complaints of eyelid lesion development and clinical suspicion of eyelid tumor, were reviewed.</p> <p>Results: Eleven patients under the age of 40 with complains of eyelid lesions and clinical suspicion of eyelid tumors who underwent surgical procedures were identified. Among these, 5 patients were male (45.4%), and 6 patients were female (54.5%). Out of the 11 eyelid tumors, 7 were benign (63.6%), and 4 were malignant (36.4%). When considering only malignant tumors, the most prevalent were basal cell carcinoma (75%), followed by squamous cell carcinoma (25%). Considering only benign tumors, the most common were intradermal melanocytic nevus (42.8%), squamous papilloma (14.2%), followed by fibroadenoma (14.2%), follicular cyst (14.2%), and eccrine hidrocystoma (14.2%). Among the 4 patients diagnosed with malignant eyelid tumors, 2 had genetic diseases (50%), with diagnoses of xeroderma pigmentosum and Gorlin-Goltz syndrome. Among the 7 patients diagnosed with benign eyelid tumors, 2 had a diagnosis of neurofibromatosis (28.5%).</p> <p>Conclusion: This study suggests that malignant eyelid tumors are uncommon in young individuals. Previous studies have shown that malignant eyelid tumors in young people tend to be more aggressive and are associated with greater challenges in eyelid reconstruction due to the lack of eyelid laxity in young individuals.</p> <p>Keywords: Eyelid Tumors; basal cell carcinoma, squamous cell carcinoma, nevus, papilloma</p>
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(PL) OCULOPLASTICS SURGERY

3. THEME: (REQUIRED) Check one:

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Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

54. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Mariana Araujo Dias R4

e-mail: marianadias1995@hotmail.com

Advisor:

CEP Number: 04.003-000

5. ABSTRACT (REQUIRED):

Title: Blepharoptosis following anti-glaucomatous procedures

Author and Co-authors: Dias, M. A, Osaki, T.H, Osaki, M.H., F. C, Melo, L.A.S

Purpose: To investigate the incidence of blepharoptosis following anti-glaucomatous procedures. Analyzed data included age, race, glaucoma classification, type of anti-glaucomatous surgery, development of blepharoptosis and eyelid ptosis features (palpebral fissure distance, marginal reflex distance 1 levator function and presence of Bell sign)

Methods: A retrospective study was performed to assess the medical records of patients who underwent anti glaucomatous surgical procedures from January 1 st 2021 to December 31 th 2022 at the Federal University of São Paulo

Results: Charts of 558 consecutive patients who underwent anti-glaucomatous surgery from January 2021 to December 2022 were retrospectively reviewed. Eighteen cases (3.2%) were reported with blepharoptosis following anti-glaucomatous surgery, the majority (82%) after trabeculectomy. The levator function was preserved in all patients. Levator advancement was the most performed surgery to correct the eyelid ptosis.

Conclusion: The occurrence of ptosis in milder degrees that did not lead to patient complaints, the short term follow up and retrospective nature of this study, besides possible lack of description in medical records for milder blepharoptosis cases may have underestimated the incidence found in the present study.

Keywords: Blepharoptosis, anti-glaucomatous surgery

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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: SUCCESS OF CANALICULAR REPAIRS USING A HAND MADE JOHNSON`S WIRE</p> <p>Author and Co-authors: Leonardo Yuji Arai Inoue</p> <p>Purpose: To evaluate the sucess rate of canalicular repair using hand made Johnson`s wire using a needle of 24G IV catheter (19mm x 0,7 mm)</p> <p>Methods: A retrospective study spanning the last 10 years of all the cases of laceration repair using Johson`s wire at a single tertiary eye care facility/postgraduate institution with a dedicated emergency room. Exclusion criteria: secondary canalicular repair, pre injury epiphora, lack of adequate follow up ('<' 3 months). Data collected included patientes setting and mechanism of injury, setting of repair, level of training of the most senior surgeon performing the repair, timing of johson`s wire removal, result of milder test and lacrimal irrigation test. In addition all patients were contacted by phone and asked about epiphora. If present a 10 point (likert-like) scale was applied (1 being " not bothered " and 10 " extremely bothered ". Funcional success was defined as a patient having no epiphora after > 3 months after Johnson`s wire removal.</p> <p>Results: In progress</p> <p>Conclusion: In progress The results will be compared with the last studies about canalicular laceration repair that demonstrates a sucess rate ranging from 58%-100%</p> <p>Keywords: Johnson`s wire / canalicular laceration repair / canalicular laceration / canalicular intubation / traumatic epiphora</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Correlation between Superior Eyelid Elevator Muscle Function, Screen Time, and Ptosis in Young Adults (Aged 20-25)</p> <p>Author and Co-authors: José Rodolfo Mariani Radaeli, Tammy Hentona Osaki, Sung Eun Song Watanabe</p> <p>Purpose: This study aims to investigate the potential relationship between superior eyelid elevator muscle function, screen time, and the presence of ptosis in young adults aged 20 to 25. We hypothesized that increased screen time may lead to decreased superior eyelid muscle function, potentially contributing to ptosis.</p> <p>Methods: Study Population: Students and residents from medical school of Escola Paulista de Medicina were evaluated between the ages of 20 to 25. Measurement of MRD1 and Levator Function: Conduct clinical assessments by residents of the third year of ophthalmology. Measure MRD1 and levator function in millimeters using standardized techniques. The eyelid margin-reflection distance was measured and considered normal between 4-5 mm and abnormal values below that. Upper eyelid excursion measurements were also taken, asking the patient to look down and then up. Exam was performed with immobilization of the frontal muscles when performing this test. Normal function was considered between 15-17 millimeters, good function between 8-15 millimeters, regular function between 5-7 millimeters and poor function less than or equal to 4 millimeters. Document ptosis severity and muscle function measurements. Assessment of Screen Time: Administer a questionnaire to collect information on daily cell phone usage, including hours of screen time. Categorize participants into groups based on their daily cell phone usage (e.g., low, moderate, high, considering 1-2 hours per day low, 2-4 hours per day moderate, and more than 4 hours per day high) Data Collection: Record MRD1, levator function, and screen time data for each participant. Data Analysis: Calculate descriptive statistics for MRD1, levator function, and screen time. Perform statistical tests (e.g., correlation analysis, regression an</p> <p>Results: In progress</p> <p>Conclusion: In progress</p> <p>Keywords: Ptosis; Decreased Elevator Muscle Function; Screen Time</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"</p> <p>POSTER</p>	
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<p>3. THEME: (REQUIRED) Check one:</p> <p>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: The Relationship of Ganglion Cell Layer and Visual Outcomes in Children with Sellar Tumors</p> <p>Author and Co-authors: Tais Estrela, MD, Ryan Gise, MD</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'</p> <p>POSTER</p>	<p>Purpose: Pediatric sellar tumors can compress visual pathways causing irreversible vision loss in children. Although retinal nerve fiber layer (RNFL) has been demonstrated to correlate with visual field loss, there is not enough data on the prognostic value of the ganglion cell layer (GCL) in predicting visual outcomes in children with sellar tumors. In this study, we evaluated the relationship between GCL and visual acuity (VA) in children with sellar tumors treated at Boston Children's Hospital.</p>
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	<p>Methods: This is a retrospective cohort study including 57 patients treated for sellar tumors. VA, visual field, RNFL, and GCL data were extracted. Pearson correlation test and univariable regression were used to investigate the relationship between VA in the worse eye and optical coherence tomography (OCT) parameters.</p> <p>Results: 57 patients (42% female, 58% male) with a median age of 9.0 years (IQR 5.0, 13.0) at diagnosis were included: craniopharyngioma (48), pituitary germinoma (5), and pituitary adenoma (4). At the last follow-up after surgical treatment, 20 patients had visual field deficits. 26 patients had OCT analysis with a median GCL 0.79 mm³ (IQR: 0.49, 1.1), RNFL 61 microns (IQR: 38, 98) and logMAR VA of 0.11 (IQR: -0.06, 0.91) in the worse eye. Both RNFL and GCL were significantly associated with VA (P= 0.037 and P= 0.002, respectively), with a stronger correlation found between VA and GCL than with RNFL (r = -0.60 vs. r = -0.43).</p> <p>Conclusion: Our results indicated that GCL is strongly correlated with VA in patients with sellar tumors and may offer a greater prognostic value than RNFL.</p> <p>Keywords: OCT, Sellar tumors</p>
<p>Deadline: 11/2023</p>	
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	

2023 Research Days Abstract Form

<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.</p> <p>(CO) CORNEA AND EXTERNAL DISEASE</p>	<p>1. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Vanessa Favero Demeda PG1</p> <p>e-mail: vanessa.favero@gmail.com</p> <p>Advisor: José Álvaro Pereira Gomes</p> <p>CEP Number: 31031420.6.0000.5505</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Jett Plasma in the treatment of Dry Eye Disease secondary to Meibomian Gland Dysfunction</p> <p>Author and Co-authors: Vanessa Favero Demeda, Chiara Luana Reinert da Silva, Rafael Jorge de Alcantara, Russein Hazarbassanov, José Alvaro Pereira Gomes</p> <p>Purpose: Assess the efficacy of Jett Plasma treatment in patients with Dry Eye Disease (DED) secondary to Meibomian Gland Dysfunction (MGD).</p> <p>Methods: This is a pilot study in which will be recruited 10 patients with dry eye and MGD. Inclusion criteria: Age 18-80 years, OSDI Dry Eye classification: score more than 13 (mild-moderate dryness), tear break-up time less than 10 seconds. Exclusion criteria: Eyelid dysfunction, Severe dry eye disease, Patients with severe MGD, Patients treated with Intense Pulsed Light, Jett Plasma contraindications (pregnant, epilepsy, oncological disease). The treatment protocol consists of the preparation of the patients through the application of anesthetic eye drops and ocular protective gel. After this, the patients are subject to the Jett Plasma device, using a silver 3 mm applicator, setting the intensity from 5 to 7, depending on the patient's sensitivity, scanning above and under the line of meibomian glands orifices, for around 2 minutes. This procedure will be executed once a week, for four weeks. Patients will be subjected to Dry Eye assessment using diagnosis criteria and methodologies recommended by the 2017 Dry Eye Workshop (DEWS II) (2), which includes the assessment of a battery of symptoms (OSDI questionnaire), signs (tear meniscus height, corneal and conjunctival lissamine green/fluorescein staining), laboratory tests (Schirmer I, NIBUT assessment, tear MMP-9, meibography, ocular redness, lipid layer thickness) and physical examination (lid, meibum gland assessment). These assessments will be carried out pre-treatment and at post-treatment visits 1 month after treatment.</p> <p>Results: in progress</p> <p>Conclusion: in progress</p> <p>Keywords: Dry Eye Disease; Meibomian Gland Dysfunction</p>
<p>4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'</p> <p>POSTER</p>	
<p>Scientific Section Descriptions (two-letter code):</p> <p>(BE) OCULAR BIOENGINEERING (CO) CORNEA AND EXTERNAL DISEASE (CA) CATARACT (EF) ELECTROPHYSIOLOGY (EP) EPIDEMIOLOGY (EX) EXPERIMENTAL SURGERY (GL) GLAUCOMA (LA) LABORATORY (LS) LACRIMAL SYSTEM (LV) LOW VISION (NO) NEURO-OPHTHALMOLOGY (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (PH) PHARMACOLOGY (RE) RETINA AND VITREOUS (RS) REFRACTIVE SURGERY (RX) REFRACTION-CONTACT LENSES (ST) STRABISMUS (TR) TRAUMA (TU) TUMORS AND PATHOLOGY (UV) UVEITIS</p>	
<p>Deadline: 11/2023</p>	
<p>FORMAT: Abstract should contain: Title Author Co-authors (maximum 6) Purpose Methods Results, Conclusion Keywords</p> <p>Poster guidelines: 90cm x 120cm</p>	

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Postgraduate Program in Ophthalmology & Visual Sciences

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