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**24th RESEARCH
DAYS**

Postgraduate Program in
Ophthalmology & Visual Sciences

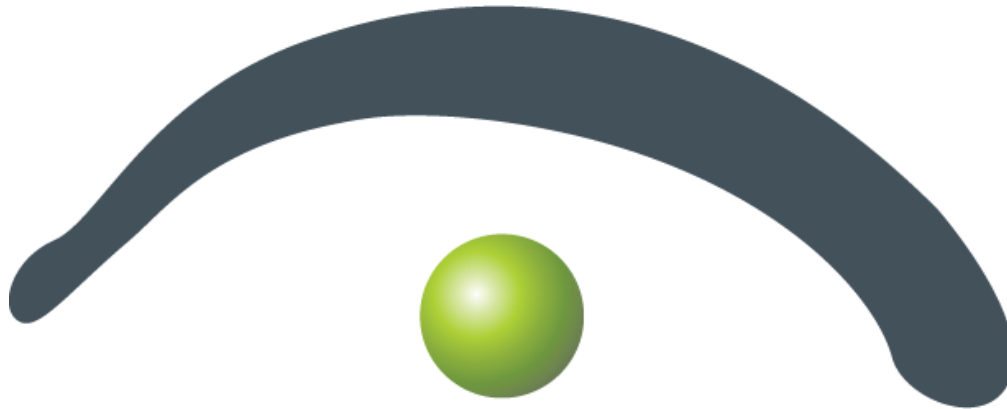
DECEMBER 08 - 09, 2022

Organization



Sponsor





24th RESEARCH DAYS

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 **24th Research Days | UNIFESP-EPM** will be held in São Paulo from December 08 to 09, 2022. Please visit our homepage <https://oftalmodapaulista.com.br/pg/mda/?p=526> for the complete Scientific Program and additional information.

FINANCIAL SUPPORT:

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PROEX CAPES Processo N^o 0190/2022 / 23038.002536/2022-51



PROGRAM AT A GLANCE

December 08, 2022 - Thursday

8:10-8:20 AM	OPENING REMARKS	Ivan Maynard Tavares / Mauro Campos
8:20-8:30 AM	POSTGRADUATE PROGRAM	Mauricio Maia
8:30-9:35 AM	PAPER PRESENTATION - SESSION 1	GLAUCOMA Moderators: Augusto Paranhos Jr., Ivan Maynard Tavares, Carolina Pelegrini
9:35-10:00 AM	INVITED LECTURE	Acácio Alves de Souza Lima Filho
10:00-10:10 AM	Discussion and Interview	
10:10-10:30 AM	COFFEE BREAK POSTER SESSION 1 Glaucoma(5) , Retina and Vitreous (17), Uveites (5) , Electrophysiology (1), Strabismus (1) , Low vision (2) and Refractive surgery (1)	
10:30-11:40 AM	PAPER PRESENTATION - SESSION 2	UVEITIS AND ONCOLOGY Moderators: Cristina Muccioli, Norma Allemann
11:40- 12:10	PAPER PRESENTATION - SESSION 3	EPIDEMIOLOGY, ELECTROPHYSIOLOGY, ULTRASOUND Moderators: Solange Rios Salomão, Adriana Berezovsky, Norma Allemann
12:10-1:10 PM	LUNCH BREAK	
1:10-2:20 PM	PAPER PRESENTATION - SESSION 4	RETINA AND VITREOUS, PHARMACOLOGY Moderators: Maurício Maia, Juliana Sallum
2:20-2:50 PM	INVITED LECTURE	Paulo José Martins Bispo
2:50-3:00 PM	Discussion and Interview	
3:00-3:20 PM	COFFEE BREAK POSTER SESSION 2 Cornea and External Diseases (18), Laboratory (5) , Cataract (1), Trauma (3), Tumors and Pathology (3), Epidemiology (3) and Oculoplastics Surgery (2)	
3:20-4:30 PM	PAPER PRESENTATION - SESSION 5	RETINA AND VITREOUS, PHARMACOLOGY Moderators: Michel Eid Farah, Caio Regatieri, Eduardo Rodrigues
4:30-5:20 PM	PAPER PRESENTATION - SESSION 6	REFRACTIVE SURGERY, CATARACT, BIOENGINEERING, LACRIMAL SYSTEM, OCULOPLASTICS SURGERY Moderators: Paulo Schor, Wallace Chamon, Walton Nosé, Mauro Campos, Renato Ambrósio Jr and Tammy Hentona Osaki
5:20 PM	END OF SESSION	



Program at a Glance

December 09, 2022 - Friday

8:10 – 8:50 AM	PAPER PRESENTATION - SESSION 6	CORNEA AND EXTERNAL DISEASES Moderators: Lauro Augusto de Oliveira, Denise de Freitas, Luciene Barbosa de Sousa
8:50 – 10:10 AM	PAPER PRESENTATION - SESSION 7	CORNEA AND EXTERNAL DISEASES Moderators: Ana Luisa Hofling-Lima, José Álvaro Pereira Gomes
10:10-10:30 AM	FINAL REMARKS AND AWARDS ANNOUNCEMENT	Caio Regatieri, Mauricio Maia, Luiz Alberto Soares

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Information

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Ivan Maynard Tavares
José Álvaro Pereira Gomes
Juliana Maria Ferraz Sallum
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Mauricio Maia
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Mauricio Maia

Poster Presentation Awards Committee

Luiz Alberto S. Melo Jr.
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Mauricio Maia

Invited Speakers

Acácio Alves de Souza Lima Filho
Paulo José Martins Bispo

SCIENTIFIC PROGRAM

December 08, 2022 - Thursday

8:10-8:20 AM	OPENING REMARKS	Ivan Maynard Tavares and Mauro Campos	
8:20-8:30 AM	POSTGRADUATE PROGRAM	Mauricio Maia	
SESSION 1	PAPER PRESENTATION		
	GLAUCOMA		
8:30-9:40 AM	Moderators: Augusto Paranhos Jr., Ivan Maynard Tavares and Carolina Pelegrini		
8:30-8:37 AM	Correlation between Structure, Function and Oxygenation in Glaucoma	Gilvan Vilarinho da Silva Filho	PG1
8:40-8:47 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
8:50-8:57 AM	Comparison of Diagnostic Performance between Large Physiologic Optic Disc Cupping versus Glaucoma using Optic Nerve Head Hemoglobin Levels and Evaluation by General Ophthalmologists	Janaina Andrade Guimaraes Rocha	PG1
9:00-9:07 AM	Triplenex (triple fixed combination) Use Evaluation In Patients With Glaucoma: Randomized Clinical Trial	Lilian França Machado	PG1
9:10-9:17 AM	A Randomized Clinical Trial of Slow Coagulation vs Subliminal Subthreshold Transscleral Diode Laser Cyclophotocoagulation Procedure in Refractory Glaucoma	Luiz Arthur Franco Beniz	PG0
9:20-9:27 AM	Eyetracker reading patterns in Glaucoma Patients vs. Control Patients	Mariana Chiba Ikeda	PG1
9:30-9:33 AM	The effectiveness of the current clinical paradigm for the diagnosis of glaucoma	Paula Azevedo Alhadef	PG1
9:35-10:00 AM	INVITED LECTURE – Acácio Alves de Souza Lima Filho		
10:00-10:10 AM	Discussion and Interview		
10:10-10:30 AM	COFFEE BREAK		
	POSTER SESSION 1		
	Glaucoma(5) , Retina and Vitreous (17), Uveites (5) , Electrophysiology (1), Strabismus (1) , Low vision (2) and Refractive surgery (1)		
SESSION 2	PAPER PRESENTATION		
10:30-11:40 AM	UVEITIS AND ONCOLOGY		
	Moderators: Cristina Muccioli and Norma Allemann		
10:30-10:37 AM	Campimetry and visual changes after RHZE treatment for tuberculosis	Brunella Pavan	PG1
10:40-10:47 AM	Comparison of two Different Doses of Intraocular Steroid Injection in Uveitic Macular Edema: A Prospective, Randomized Clinical Trial	Carlos Eduardo De Souza	PG1
10:50-10:57 AM	Title: High Doses of cholecalciferol in the treatment of autoimmune uveitis	Karine Koller	PG1
11:00-11:07 AM	Superficial Automated Keratopigmentation for corneal leukomas	Michelle de Lima Farah	PG1
11:10-11:17 AM	Retinal autofluorescence findings after COVID-19	Paula Marques Marinho	PG1
11:20-11:27 AM	Concordance between clinical diagnosis and histopathology in 217 biopsied cases at Ocular Oncology service.	Melina Correia Morales	PG1
11:30-11:37 AM	Correlation of optical tomographic patterns to histopathology of ocular surface lesions	Camile Fagundes Freitas De Tonin	PG1

SESSION 3 PAPER PRESENTATION			
11:40-12:10 AM EPIDEMIOLOGY, ELECTROPHYSIOLOGY, ULTRASOUND Moderators: Solange Rios Salomão, Adriana Berezovsky, Norma Allemann			
11:40-11:47 AM	Validation of ROPScore and WINROP to predict development and severity of retinopathy of prematurity in a Tertiary Referral Hospital	Amanda Frota Lacerda Morais	PG1
11:50-11:53 AM	Glaucoma drainage device position: anterior segment optical coherence tomography and ultrasound biomicroscopy	Alessandra Akemi Kusabara	PG1
11:55-11:58 AM	Value-based Health Care Analysis in Ophthalmology	Raphael de Faria Schumann	PG1
12:00-12:07 AM	Ocular globe growth in children with congenital Zika syndrome	Thayze Melo Martins	PG1
12:10-1:10 PM LUNCH BREAK			
SESSION 4 PAPER PRESENTATION			
1:10-2:20 PM RETINA AND VITREOUS, PHARMACOLOGY Moderators: Maurício Maia, Juliana Sallum			
1:10-1:17 PM	Evaluation of the Epidemiological Profile of Patients with Retinopathy of Prematurity (ROP) in the State of Pernambuco in the last 10 years	Adriana de Oliveira Lima Gois	PG1
1:20-1:27 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
1:30-1:37 PM	Superselective intra-arterial chemotherapy for retinoblastoma in 157 eyes.	Luiz Fernando Teixeira	PG1
1:40-1:47 PM	Novel Mutation in LIM2 Causing Pediatric Cataract	Olivia Araujo Zin	PG1
1:50-1:57 PM	Is Green fine but fair? Comparison of OCT normative databases and the need for publicly available data	Luis Filipe Nakayama	PG1
2:00-2:07 PM	Posterior microphthalmos with retinal involvement related to MFRP gene: a report of 11 Brazilian patients	Rebeca Azevedo Souza Amaral	PG1
2:10-2:13 PM	Silicone oil droplets released from intravitreal injections of Aflibercept and Bevacizumab on Human Retinal Pigment Epithelium (ARPE-19) in vitro	Paula Sakemi Fukuhara	PG0
2:15-2:17 PM	Affordances in the home environment on visual and motor development of children with congenital Zika syndrome	Raíne Borba Arruda	PG1
2:20-2:50 PM INVITED LECTURE – Paulo José Martins Bispo			
2:50-3:00 PM Discussion and Interview			
3:00-3:20 PM COFFEE BREAK			
POSTER SESSION 2			
Cornea and External Diseases (18), Laboratory (5), Cataract (1), Trauma (3), Tumors and Pathology (3), Epidemiology (3) and Oculoplastics Surgery (2)			
SESSION 5 PAPER PRESENTATION			
3:20-4:30 PM RETINA AND VITREOUS, PHARMACOLOGY Moderators: Michel Eid Farah, Caio Regatieri, Eduardo Rodrigues			
3:20-3:27PM	Different approaches and outcomes in anti-VEGF-related endophthalmitis in a Brazilian tertiary hospital: a 9-year retrospective case series	Vinicius Campos Bergamo	PG1
3:30-3:37PM	Plasma ceramides role in diabetic retinopathy	Erika Sayuri Yasaki	PG1
3:40-3:47 PM	I-25 for Diabetic Macular Edema: a randomized controlled study	Felipe Pereira	PG1
3:50-3:57 PM	Evaluation of the accuracy and precision of delivery devices used in intravitreal injection	Lydianne Lumack do Monte Agra	PG1



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4:00-4:07 PM	Mathematical modeling for drug delivery and inflammation process: an application in macular edema.	Mariana Batista Gonçalves	PG1
4:10-4:17 PM	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
4:20-4:23 PM	Heavy silicone oil surgical approach and retrospective case series	Ramon Antunes de Oliveira	PG1
4:25-4:28 PM	Automated machine learning models for fundus Image classification by health-care professionals with no coding experience	Lucas Zago Ribeiro	PG1

SESSION 6 PAPER PRESENTATION

4:30-5:07 AM REFRACTIVE SURGERY, CATARACT, BIOENGINEERING, LACRIMAL SYSTEM, OCULOPLASTICS SURGERY
Moderators: Paulo Schor, Wallace Chamon, Walton Nosé, Mauro Campos, Renato Ambrósio Jr. and Tammy Hentona Osaki

4:30-4:37 AM	Development of Convolutional Neural Networks for Keratoconus Detection on Topography Images	Felipe Marques De Carvalho Taguchi	PG1
4:40-4:47 AM	Ectasia Risk Assessment before Surface Ablation: Two Case Reports of Ectasia after PRK	Louise Pellegrino Gomes Esporcatte	PG1
4:50-4:57 AM	Hemifacial Spasm: gene expression, immunohistochemical, metabolic and morphometric alterations	Gustavo Rosa Gameiro	PG1
5:00-5:07 AM	Evaluation of high order aberrations in regular corneas and their relation to epithelial remodeling in patients undergoing topoguided femtolasik (Contoura®) in one eye and customized by asphericity (Custom-Q®) in contralateral eye: a randomized and double-blind prospective study	Adriana Falcão Veloso Lyra	PG1
5:10-5:17 AM	Eye Aspect Ratio to assess hemifacial spasm patients	Cristina Yabumoto	PG1
5:20-5:23 AM	Applying and integrating Relational Tissue Altered (RTA)	Aydano Pamponet Machado	PG1

5:20 PM END OF SESSION

SCIENTIFIC PROGRAM

December 09, 2022 – Friday

SESSION 7 PAPER PRESENTATION

8:10 – 8:50 AM CORNEA AND EXTERNAL DISEASES

Moderators: Lauro Augusto de Oliveira, Denise de Freitas, Luciene Barbosa de Sousa

8:10-8:17 AM	Evaluation of Rose Bengal photoactivated by green LED light activity alone or associated with Polyhexamethyl Biguanide and propamidine isethionate for in vitro inhibition of Acanthamoeba spp.	Talita Trevizani Rocchetti	Post-doc
8:20-8:27 AM	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
8:30-8:37 AM	Early Experience of Teleconsultation at an Early Visual Stimulation Service of Infantile Low Vision.	Ana Carolina Sarmiento Barros Carneiro	PG0
8:40-8:47 AM	PANEL OF TEAR AND SERUM BIOMARKERS IN KERATOCONUS	Renato Leca Galao	PG1
8:50-8:53AM	Treatment of Severe Acute Corneal Hydrops With Intrastromal Autologous Blood Injection	Lucas Baldissera Tochetto	PG1

SESSION 8 PAPER PRESENTATION

8:55-10:10 AM CORNEA AND EXTERNAL DISEASES

Moderators: Ana Luisa Hofling-Lima, José Álvaro Pereira Gomes

8:55-9:02 AM	The effect of oral isotretinoin on meibography and ocular surface parameters of acne vulgaris patients	Fábio Mendonça Xavier Andrade	PG1
9:05-9:12 AM	Sars-CoV-2 detection in the ocular surface: beyond Viral Strain Virulence and Vaccination	Dalton de Freitas Santoro	PG1
9:15-9:22 AM	Evaluation of diagnostic methods for Acanthamoeba keratitis, including PCR analysis of corneal scrapings	Renata Cavalcanti Portela Boro	PG0
9:25-9:32 AM	Time as a determining function in the indication and evolution of eye surgeries: evaluation of lasik to reduce hyperopia and induce myopia as a treatment for presbyopia.	Ermanno de Melo Alves	PG1
9:35-9:38 AM	Jett Plasma in the treatment of Dry Eye Disease secondary to Meibomian Gland Dysfunction	Vanessa Favero Demeda	PG1
9:40-9:43 AM	Intense Pulsed Light in the Treatment of Dry Eye and Meibomian Gland Dysfunction in Patients with Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis	Rafael Jorge Alves de Alcântara	PG1
9:45-09:52 AM	Prevalence and risk factors for dry eye disease: the Sao Paulo dry eye study	Leonardo Guedes C. Marculino	PG1

09:55-10:25 PM FINAL REMARKS AND AWARDS ANNOUNCEMENT

Caio Regatieri, Mauricio Maia, Luiz Alberto Soares

POSTERS

December 08, 2022 - Thursday

ONLINE POSTER SESSION 1
Glaucoma(5) , Retina and Vitreous (17), Uveites (5) , Electrophysiology (1), Strabismus (1) , Low vision (2) and Refractive surgery (1)

PERIPAPILLARY VASCULAR DENSITY, RETINAL NERVE FIBER LAYER THICKNESS, DISC RIM AREA AND GANGLION CELL COMPLEX THICKNESSES IN CHRONIC CHAGAS DISEASE	Cristiana Lumack do Monte Agra	PG1
High density perimetry and foveal avascular zone in glaucoma	Gustavo Coelho Caiado	PG1
COMPARISON OF EPIDEMIOLOGICAL AND LONGITUDINAL OCULAR METRICS BETWEEN GLAUCOMATOUS PATIENTS TREATED IN THE PUBLIC AND PRIVATE HEALTH CARE SYSTEMS	Marcos Pereira Vianello	PG1
Randomized Clinical Trial: Effects of Melatonin Replacement on Sleep Quality of Patients with Advanced Glaucoma	Priscilla Fernandes Nogueira	PG1
CORRELATION BETWEEN COGNITIVE LEVEL AND RISK OF FALLS WITH GLAUCOMATOUS DEFECT TOPOGRAPHY IN THE VISUAL FIELD	Giovanna Yurie Wada	PIBIC
Extensive Macular Atrophy with Pseudodrusen-like Appearance (EMAP): Case series and review	Anelise Savaris Dias	PG0
Analysis of the variation in macular thickness and choroidal thickness with Swept Source OCT in patients with exudative age-related macular degeneration undergoing intravitreal injections of aflibercept	Daniel Prado Beraldo	PG0
Detection of diabetic macular edema from optical coherence tomography (OCT) using deep learning	Helen Veloso Santos	PG0
Splint Study: PNEUMATIC RETINOPEXY BEFORE VITRECTOMY FOR MACULA OFF RETINAL DETACHMENT	Julia de Lima Farah	PG0
TELEMENTORING VERSUS FACE-TO-FACE MENTORING IN TRAINING FOR INTRAOCULAR LENS SCLERAL FIXATION SURGERIES	Luiz Filipe Adami Lucatto	PG1
BIOMARKERS ANALYSIS OF OCT-ANGIOGRAPHY AND OPTICAL COHERENCE TOMOGRAPHY EXAMS IN PATIENTS WITH MACULAR EDEMA TREATED WITH ANTI-VEGF.	Marcussi Palata Rezende	PG0
Retinal and choroidal thickness in pediatric patients with sickle cell disease: a cross-sectional cohort study	Juliana Moura Bastos Prazeres	PG0
Pupillary block in ectopia lentis et pupillae (ELeP): a case report	Amanda Thum Welter	R1
Racemose hemangioma (Wyburn-Mason syndrome): a case report.	Iago Diógenes Azevedo Costa	R1
MULTIMODAL IMAGING OF DIDANOSINE-RELATED RETINOPATHY	João Gabriel Alexander	R1
Syphilis presenting as Pseudo-Foster-Kennedy Syndrome	Maurício Pessôa Lima Filho	R1
Multimodal Evaluation of macula off rhegmatogenous retinal detachment successfully treated with scleral buckle	Vinicius Oliveira Pesquero	R2
Study of simulated vitreoretinal performance following multimodal pharmacological, and behavioral exposures, among surgeons with varying levels of surgical experience.	Vitor Dias Gomes Barrios Marin	R2
Candida tropicalis endophthalmitis - a case report	Franklin Kuraoka Oda	Fellow
A distinct case in the pachychoroid spectrum	Julia Jiquilin Carvalho	Fellow
Validation of non-mydratic and mydratic handheld retinal imaging systems for diabetic retinopathy screening and classification	Juliana Angélica Estevão de Oliveira	Fellow
Anatomical and Functional Analysis of the Retina in Patients with Ocular Toxoplasmosis Undergoing Posterior Vitrectomy ? Retrospective Study.	Talita Virginia Fernandes de Oliveira	Fellow
Protein's profile of purified plasma and aqueous humor extracellular vesicles from patients with ocular toxoplasmosis	Carmen Luz Pessuti	PG1
Where did this blood come from?	Pedro de Faria Gusmão	R1
Clinical features and presentation of unilateral refractory scleritis	Anna Victoria Porfirio Ramos Caiado	Fellow
Clinical aspects and epidemiological profile of uveitis cases at a reference university hospital in São Paulo, Brazil	Bárbara Guimarães Lisboa Lima	Fellow
Ultra-Widefield Multimodal Imaging in Uveitis	Taiane Kelly Lima da Silva	Fellow



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Ocular, systemic and electrophysiologic findings in Knobloch syndrome: a 21-year follow-up	Arnaldo Roizenblatt	R1
Accuracy of muscle insertion measurement in strabismus reoperation using OCT	Frederico Galvani Harckbart Carvalho	R2
Validation of Cloudscaper Optotypes versus LEA Symbols for Virtual Visual Acuity Measurement in Children 3 to 16 Years Old	Cristiana Ronconi Lopes	PG0
Quality of life in visual impaired children treated for Early Visual Stimulation after the introduction of Telemedicine	Aileen Miwa Tabuse	R3
Corneal crosslinking with barbatimão and açai extract in rabbits: biomechanical and optical effects	Bernardo Kaplan Moscovi	PG0

POSTERS

December 08, 2022 - Thursday

ONLINE

POSTER - SESSION 2

Cornea and External Diseases (18), Laboratory (5), Cataract (1), Trauma (3), Tumors and Pathology (3), Epidemiology (3) and Oculoplastics Surgery (2)

ORAL RIBOFLAVIN AND SUNLIGHT EXPOSURE IN THE TREATMENT OF PROGRESSIVE KERATOCONUS: PRELIMINARY RESULTS	Edilana Sá Ribeiro Campêlo	PG1
Corneal Confocal Microscopy Findings in Patients with Primary Sjögren's Syndrome and Small Fiber Neuropathy	Laura Caldas dos Santos	PG1
ENDOPHTHALMITIS IN ACANTHAMOEBA KERATITIS	Luciana Lopes Rocha	PG1
Assessing the ocular surface, oral and gut microbiome in Stevens-Johnson syndrome	Luciana Frizon	PG1
Herpetic eczema with ocular involvement (Kaposi's Varicelliform Eruption): a case report.	Tulio Ruiz Eschiapati	R1
Characteristics of presentation of ocular tuberculosis in a Cornea and External Ocular Diseases department	Carolina Ferreira Huang	R2
Seasonal trends of Acanthamoeba keratitis in a reference service	Guilherme Niciunovas	R2
CLINICAL ASPECTS AND QUALITY OF LIFE OF PATIENTS WITH ALLERGIC KERATOCONJUNCTIVITIS	João Victor Borges Gomes	R2
NEISSERIA KERATOCONJUNCTIVITIS: DESCRIPTION OF CASES IN TERTIARY CARE CENTER	Guilherme Macedo Souza	R3
DESCRIPTION OF NEISSERIA KERATOCONJUNCTIVITIS CASES IN A TERTIARY CARE CENTER	Klaus Anton Tyrrasch	R3
Efficacy and safety of bovine L-hydro pericardium on primary pterygium treatment	Mirella Millena Carmo De Andrade	R3
Evaluation by confocal microscopy of patients with acute corneal hydrops submitted to stromal injection of autologous blood	Ítalo Pena de Oliveira	R4
CLINICAL AND OUTCOMES PROFILES IN PATIENTS WITH ISOLATED ACANTHAMOEBA KERATITIS VERSUS MIXED ACANTHAMOEBA KERATITIS	Raquel de Oliveira Peluso	R4
Fibrin glue versus bipolar electrocautery for conjunctival autografting in primary pterygium surgery	Renata Leonel Freire Mendes	R4
Evaluation of visual outcomes of patients with keratoconus treated in the Visual Rehabilitation Project in a tertiary referral hospital	Victoria Sakamoto	R4
Scleritis: epidemiology, clinical features, evolution and treatment outcomes in a referral center in Brazil	Francisco Reinaldo de Sousa Neto	Fellow
Prediction of agreement between peripheral scotoma and nerve fiber layer loss in OCT	Luciana Arias Fernandez	Fellow
Etiopathogenesis of Acanthamoeba keratitis: effect of keratectomy in superficial keratitis	Natalia Luz Aquino	Fellow
In vitro AND in vivo EVALUATION OF INFLAMMATORY AND HUMORAL IMMUNE RESPONSE IN PATIENTS DIAGNOSED WITH Acanthamoeba KERATITIS	Larissa Fagundes Pinto	PG1
Teleophthalmology Jurisprudence	Stefano Neto Jai Huyn Choi	PG1
EVALUATION OF THE PRESENCE OF Acanthamoeba IN SCLERAL CONTACT LENSES, LENS CASES AND PLUNGERS, POTENTIAL CONTAMINATION SOURCES OF PATIENTS WITH Acanthamoeba KERATITIS.	Glauco Sérgio Avelino de Aquino	R2
INTERACTION OF Acanthamoeba spp. CYSTS AND TROPHOZOITES WITH HUMAN MACROPHAGES	Mylena Cristina de Souza Barsch	PIBIC
EVALUATION OF THE POTENTIAL OF ACTIVATED CHARCOAL AS AN COADJUVANT TREATMENT OF BACTERIAL CORNEAL ULCER, "IN VITRO" STUDY	Vitoria Regina da Silva Gomes	PIBIC
Long-term visual acuity results from cataract surgery and its association with self-reported visual function: Catquest applicability	Andre Hiroshi Bando	Fellow
Electrophysiological findings in a traumatic optic neuropathy after blunt ocular trauma: a case report	Lucas Henrique Pereira	R1
PARTIAL TRAUMATIC OPTIC NERVE HEAD AVULSION: AN UNUSUAL PRESENTATION	Pedro Leite Costa Franco	R1

Epidemiology of penetrating ocular trauma in the elderly ? a Brazilian experience	Juan Fulgencio Welko Mendoza	R3
A SURVEY OF SYNDROMIC CASES FORWARDED TO A REFERENCE SERVICE IN OPHTHALMIC ONCOLOGY: PROFILE AND FREQUENCY	Débora Yoshimatsu Izelli	Fellow
Evaluation of patient adherence to the treatment of squamous neoplasm of the ocular surface with chemotherapeutic eye drops	Tiago Almeida Carvalho	Fellow
Efficacy of topical 0.5% 5-fluorouracil for the treatment of ocular surface squamous neoplasia.	Gabriela Carneiro Teixeira	MP
Epidemiological statistical analysis comparing public and private care at the Ophthalmology Emergency Room in the city of São Paulo, involving Hospital São Paulo x H.Olhos.	Pedro Antonio Nogueira Filho	PG0
PROFILE OF STRICTO SENSU GRADUATES IN OPHTHALMOLOGY AND UNIFESP VISUAL SCIENCES	Rosangela Demetrio	PG1
São Paulo Hospital's Ophthalmology Inpatient Consults	Jose Rodolfo Mariani Radaeli	R2
An atypical eyelid malignancy	Ugor Tomaz Fernandes	R1
Assessment of blepharoptosis following corneal transplantation	Frederico Do Carmo Novaes	R2
Blepharoptosis after vitreoretinal procedures	Maria Gabriela Dourado de Melo Gusmão	R2
MODIFIED VAN MILLINGEN TECHNIQUE USING FIBRIN SEALANT TO MANAGE MAJOR TRICHIASIS	Flávio de Ávila Fowler	R3
Blepharoptosis following anti-glaucomatous procedures	Mariana Araujo Dias	R3
Analysis of intraocular pressure, optic disc and optic coherence tomography differences in blepharospasm and hemifacial spasm patients	Tulio Loyola Figueiredo	R3

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(GL) GLAUCOMA

1. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Augusto Paranhos Jr.

CEP Number: 52700221.9.0000.5505

3. THEME: (REQUIRED) Check one:

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Paper

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Author
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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Correlation between Structure, Function and Oxygenation in Glaucoma

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

Purpose: Perform a correlation between perimetry parameters (Mean Defect-MD), Laguna (Globin Distribution Factor-GDF, Globin Individual Pointer-GIP, Deep Learning-DL and Total Hb) and OCT (retina nerve fiber layer-RNFL and ganglion cells layer-GCL).

Methods: We included 245 eyes from 142 glaucoma patients. Retinography and OCT were performed using Triton and visual field (VF) 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.

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 Total Hb was 65.98. The mean RNFL was 75.2 and the GCL was 89.46. There was a statistically significant correlation (SSC) between the MD and the parameters DL, GDF and GIP in the univariate analysis (UA), but only with the GDF in the multivariate analysis (MA). There was SSC between the mean RNFL and the parameters DL, GDF, GIP and Total Hb in UA, and with DL, GDF and Total Hb in MA. SSC 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 MA. There were also SSC between the Total Hb of the inferior temporal sector (IT) of the Laguna (271-310°) and the mean of the RNFL and GCL of the IT sector of the OCT.

Conclusion: The study showed SSC between the functional parameters of the VF 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.

Keywords: glaucoma; perfusion; perimetry; oxygenation

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2. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Carolina Pelegrini

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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.

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

Purpose: Obstructive sleep apnea syndrome (OSAS) is associated with glaucoma. Polysomnography (PSG) is considered to be 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.

Methods: This is a prospective, cross-sectional study, in which 9 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 Berlin OSAS risk questionnaire and NEI-VFQ 25 life quality questionnaire filled.

Results: The mean age was 57.88 ± 7.68 years, and 66.67% was female. The mean body mass index (BMI) was 25.86 ± 2.91 , and the average mean deviation of the left eyes was -7.24 ± 7.86 dB. There was a significant association between the left eye's average RNFL and NEI-VFQ 25 questionnaire ($p = 0.035$) and between the left eye's average GCL inner plexiform with the Berlin OSAS risk questionnaire ($p = 0.047$).

Conclusion: Our study found an association between average RNFL and quality of life, and besides between average GCL inner plexiform with OSAS risk. 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.

Keywords: Glaucoma; Obstructive Sleep Apnea; Polysomnography; OCT;

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(GL) GLAUCOMA

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Advisor: Tiago Prata

CEP Number: 0073/2020

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5. ABSTRACT (REQUIRED):

Title: Comparison of Diagnostic Performance between Large Physiologic Optic Disc Cupping versus Glaucoma using Optic Nerve Head Hemoglobin Levels and Evaluation by General Ophthalmologists

Author and Co-authors: Janaina A. G. Rocha, Carolina P. B. Gracitelli, Tiago S. Prata, Augusto Paranhos Jr, Fábio N. Kanadani, Cláudia G. V. S. Franco, Leopoldo Magacho.

Purpose: To compare the diagnostic performance in differentiating patients with glaucoma from those with large physiological optic disc cupping (LPC), between optic nerve head hemoglobin levels (ONH Hb), using the Laguna ONhE software, and the evaluation of general ophthalmologists accessing color retinography (CR) only and the combination of this with visual field (VF) and/or optical coherence tomography (OCT).

Methods: Twenty general ophthalmologists evaluated the PowerPoint slide images of forty patients with glaucoma and forty presenting LPC. The exams of the participants were randomized in 4 groups: Group 1 (GI): CR, Group 2 (GII): CR + VF, Group 3 (GIII): CR + OCT, Group 4 (GIV): CR + VF + OCT. All CR were analyzed by the software Laguna ONhE, to estimate ONH Hb and performed the diagnosis of glaucoma. Accuracy, sensitivity (Se), specificity (Sp), positive predictive value (PPV) and negative predictive value (NPV) of each group was calculated and compared with Laguna ONhE. Kappa statistics was performed to access the agreement between examiners.

Results: Accurate diagnosis was better performance in GIII compared to GI (15.8 ± 1.82 vs. 12.95 ± 1.46 , respectively, $p < 0.001$). Correct diagnosis was higher in GII (16.25 ± 2.02) compared to GI and GIV (14.10 ± 2.24), $p < 0.001$ for both. Accuracy, Se and Sp were respectively 64.8%, 59% and 70.5% in GI, 81.3%, 86.5% and 76% in GII, 79%, 86.5% and 71.5% in GIII, 70.5%, 68.5% and 72.5% in GIV, 58%, 97.2% and 25% in relation to Laguna ONhE. The highest rate of Kappa (k) occurred in GII, $k = 0.63$, 95% Confidence interval (CI) 0.53-0.72, then GIII, $k = 0.58$ (95% CI 0.48-0.68), GIV, $k = 0.41$ (95% CI 0.31-0.51) and finally GI, $k = 0.30$ (95% CI 0.20-0.39).

Conclusion: Laguna ONhE software, a low-cost and non-invasive method, showed good sensitivity and great utility as a screening method in differentiating patients with glaucoma from those with LPC, compared with evaluation of general ophthalmologists. Future studies are needed to evaluate the software longitudinal performance, contributing with non-glaucoma specialists in the management of these patients.

Keywords: Glaucoma, Diagnosis, Hemoglobin, Optic Nerve Head

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Keywords

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5. ABSTRACT (REQUIRED):

Title: Triplenex (triple fixed combination) Use Evaluation In Patients With Glaucoma: Randomized Clinical Trial

Author and Co-authors: Lilian Machado, MD, Mariana Kawamuro, MD, André Bando, MD, Giovanna Y. Wada, Pedro V. Ferrari, MD, Sergio H. Teixeira, MD, PhD, Tiago dos Santos Prata, MD, PhD, Augusto Paranhos Jr., MD, PhD, Carolina Pelegrini Barbosa Gracitelli, MD, PhD,

Purpose: This project purpose is to evaluate the effectiveness, ocular surface quality, medication adherence and quality of life in 17 glaucoma patients in use of three separate drugs (Bimatoprost 0.3%, Timolol Maleate 0.5% and Brimonidine Tartrate 0.2%) comparing with triple combination, Triplenex.

Methods: In this clinical trial approved by the Unifesp Etical and Research Comittee, volunteer glaucoma patients will be recruited from Unifesp Glaucoma Sector and VerMais Glaucoma Sector. They will be randomly divided em two groups, Group I is going to be treated with Triplenex (1 drop twice a day) and Grupo II with Brimonidine Tartarate (1 drop twice a day), Timolol Maleate (1 drop twice a day) and Bimatoprost (1 drop at night). At baseline visit a complete ophthalmolgical exam will be performed along with three questionnaires (?Ocular Surface Disease Index?, ?Glaucoma Treatment Compliance Assessment Tool? and ?National Eye Institute Visual Function Questionnaire?), retinography, visual field, optic nerve OCT in all patients. This procedure will be repeated at baseline and within 4, 8, 12 weeks.

Results: Mean age, visual acuity, mean deviation and intraocular pressure (IOP) were similar between Group I and Group II (64.82±11.55 years, -10.59±9.09 dB, 16.23±4.94mmHg). Ocular Surface and QoL questionnaires showed no difference between groups. A significant difference was found between washout IOP visit and third visit using the randomized eyedrops (25.8±7.9mmHg, 15.2±1.8mmHg, p=0.001).

Conclusion: Patients with glaucoma using separate drugs (Bimatoprost 0.3%, Timolol Maleate 0.5% and Brimonidine Tartrate 0.2%) comparing with triple combination, Triplenex had similar responses in IOP control, ocular surface index, QoL and in 4 months of evaluation. Both groups had significant IOP reduce comparing the washout visit and 2 months eyedrops use.

Keywords: Glaucoma, Adherence, Triplenex, Timolol, Brimonidine, Bimatoprost, Surface

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Advisor: Augusto Paranhos Jr.

CEP Number: 1034/2021

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Purpose
Methods
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Keywords

Poster guidelines:
90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: A Randomized Clinical Trial of Slow Coagulation vs Subliminal Subthreshold Transscleral Diode Laser Cyclophotocoagulation Procedure in Refractory Glaucoma

Author and Co-authors: Luiz Arthur Franco Beniz, Carolina Pelegrini Barbosa Gracitelli, Augusto Paranhos Junior

Purpose: Evaluate the effectiveness of transscleral diode laser cyclophotocoagulation and compare the results of the continuous slow-coagulation mode and subliminal subthreshold mode techniques in a population of patients with refractory glaucoma enrolled in the glaucoma sector.

Methods: Prospective, randomized clinical trial conducted in a population of patients with indication of transscleral cyclophotocoagulation for the treatment of refractory glaucoma. Patients will be divided into two groups: continuous slow-coagulation mode group, subliminal subthreshold mode group. In both groups, the device used will be Vitra 810TM Laser System, with the SubCyclo® Laser Probe for SubLiminal Cyclophoto coagulation (Quantel Medical, Cournon d'Auvergne, France). The procedures will be performed in operating room. The patients will be followed for a total of 18 months and, throughout this period, parameters such as best corrected visual acuity, intraocular pressure, biomicroscopy exam (slit lamp), funduscopy and pachymetry will be evaluated. Besides, quality of life forms and pain scale will be used in the assessment.

Results: STUDY IN PROGRESS - Primary outcomes of success will be: absolute measure of intraocular pressure (IOP), with values between 6 and 21 mmHg, reduction of at least 30% from baseline value, absolute measure, with a value lower than the stipulated IOP target. Secondary outcomes evaluated will be the number of hypotensive medications, the number of complications occurring in the postoperative period and the need for re-treatment during the follow-up.

Conclusion: STUDY IN PROGRESS

Keywords: Glaucoma, Cyclophotocoagulation, Diode Laser, Slow Coagulation, Micropulse, Subliminal Subthreshold

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6. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Mariana Chiba Ikeda - PG1
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Advisor: Carolina Pelegrini

CEP Number: 11.540.089

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

Purpose: To evaluate reading performance patterns (through saccades, fixation and visual field) in glaucoma patients vs. control group using the eye tracker. In addition, to determine the influence of cognitive level and contrast sensitivity.

Methods: This is a prospective case control study including 116 patients (64 glaucoma and 52 control). 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).

Results: Glaucoma group had mean age of 65.9 (± 14.13) and control group, 62.30 years (± 10.26) ($p=0.13$). 38 (73.08%) and 41 (64.06%) of patients had first degree in the control and glaucoma group, respectively. BCVA in the left eye was 0.04 (± 0.09) and 0.18 (± 0.16) logMAR in the control and glaucoma group, respectively ($p=0.00$). MD of the left eye in the glaucoma group was -10.67 (± 8.64) dB. MoCA score was 21.67 (± 3.35) and 21.53 (± 4.09) in control and glaucoma group, respectively ($p=0.84$). Contrast sensitivity test was 1.84 (± 0.15) and 1.56 (± 0.33) logCS in control and glaucoma group, respectively ($p=0.00$). There was a significant positive correlation among contrast and MD ($p=0.001$). And there was a significant positive correlation among contrast and BCVA ($p=0.000$). There was no correlation with MoCA and contrast ($p=0,145$), and MoCA and BCVA (0.681).

Conclusion: We conclude that in advanced stages glaucoma, when there's a lower MD and lower BCVA, there's also a decrease in contrast vision, which could explain, in some part, the improvement of reading speed with higher contrast slides. Although, eye tracker data is not yet analyzed, with this study's MoCA results not statistically significant among groups, we see that the reading speed would not be influenced by participant's cognition level.

Keywords: Glaucoma; eye tracker; eyetracking; cognitive level; contrast; contrast sensitivity; reading; reading speed

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Advisor: Ivan Maynard Tavares

CEP Number: 4.507.750

5. ABSTRACT (REQUIRED):

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

Author and Co-authors: Paula A Alhadeff, Ivan M Tavares

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 visual field (VF), macular and disc optical coherence tomography (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: I haven't finished to collect all the data of the subjects. I don't have the results yet.

Conclusion: Same for conclusion. Based on a similar paper, using the one-page report, the experienced readers showed excellent inter-rater repeatability and diagnostic ability relative to glaucoma specialists.

Keywords: glaucoma; visual field; artificial intelligence; optical coherence tomography; retinography; reports

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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.

(NO) NEURO-OPHTHALMOLOGY

8. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Rubens Belfort Jr.

CEP Number: 29057600

3. THEME: (REQUIRED) Check one:

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Abstract should contain:

Title
Author
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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Campimetry and visual changes after RHZE treatment for tuberculosis

Author and Co-authors: Brunella Maria Pavan Taffner, Luiz Guilherme Ito da Cruz, Flávio de Ávila Fowler, Carolynne Cardoso Nawa, Marcia Telma Savioli, Denise Silva Rodrigues, Octaviano Magalhães Junior and Rubens Belfort Junior.

Purpose: To observe alterations in the computerized campimetry, Ishihara test and visual acuity secondary to rifampicin, isoniazid, pyrimethamine, ethambutol (RHZE) treatment.

Methods: Patients undergoing treatment with RHZE at the tuberculosis service of the Federal University of São Paulo were recruited from March 2019 to December 2020. The best-corrected visual acuity (VA) measurements, Ishihara test and visual fields were performed at baseline, monthly, until 2 weeks after treatment.

Results: Twenty-five patients were included. The VA decreased significantly ($P = 0.0129$) post-treatment compared to month 1. The mean deviation (MD) did not decrease significantly ($P > 0.05$), the pattern standard deviation (PSD) decreased post-treatment compared to month 1 ($P = 0.0371$). Changes in the Ishihara test increased significantly ($P < 0.0001$) in the second month.

Conclusion: The VA and PSD decreased significantly after RHZE treatment. Changes in the Ishihara test were observed in the second month.

Keywords: Retina, Campimetry, Tuberculosis, Toxicity

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Keywords

Poster guidelines:
90cm x 120cm

9. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Carlos Eduardo De Souza - PG1

e-mail: edusouzaa@gmail.com

Advisor: Cristina Muccioli

CEP Number: 54903421.5.0000.5505

5. ABSTRACT (REQUIRED):

Title: Comparison of two Different Doses of Intraocular Steroid Injection in Uveitic Macular Edema: A Prospective, Randomized Clinical Trial

Author and Co-authors: Carlos Eduardo de Souza, Monique Viana de Sousa, Lisangela Naomi Morimoto, Cristina Muccioli

Purpose: To compare the use of intraocular injection of triamcinolone of standard dose (4mg in 0,1ml) with low-dose (2 mg in 0.05 ml) and evaluate the effectiveness as well as adverse events in patients with uveitis-related macular edema.

Methods: This randomized controlled trial, 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 OCT Angiography. In addition, patients will complete the VQF-25 NIE questionnaire before and 30 days after the procedure. It is a double-blind study and neither the participants nor the physician knows the dose that was injected. 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 will not be included in the study. Primary outcome is the absolute and percentage change in central retinal thickness (CRT) in the study eye from baseline to 3 months.

Results: The mean baseline best correct visual acuity in the group 1 (study group) was 0,725 LogMar (20/100) and 0,86 (20/150) in group 2 (control group).The mean baseline intraocular pressure (IOP) was 17mmHg in both groups and on 30-day follow-up the mean IOP was 21 mmHg and 19 mmHg in group 1 and 2 respectively.Regarding evidence on OCT, the mean baseline CRT was 438 micra in the group 1 and 619 micra in the group 2. After 30 days of follow-up, 4 patients had completely improvement in the macular edema, three of them from the study group.

Conclusion: Without analytical (statistical) power yet, the data after 5 months shows a tendency of similarity of the lower dose in relation to the control group in terms of changes in central macular thickness, BCVA and intra-ocular pressure. The study will include 30 patients in each arm and will possibly came up with more robust evidence in periocular steroid treatment of macular edema.

Keywords: Uveitic Edema, Triamcinolone, Intra ocular steroids

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Co-authors (maximum 6)
Purpose
Methods
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Conclusion
Keywords

Poster guidelines:
90cm x 120cm

10. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Karine Koller - PG1
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Advisor: Cristina Muccioli

CEP Number: 01308-030

5. ABSTRACT (REQUIRED):

Title: Title: High Doses of cholecalciferol in the treatment of autoimmune uveitis

Author and Co-authors: Koller, Karine Casaroli-Marano, Ricardo Pedro Coimbra, Cicero Galli Muccioli, Cristina

Purpose: Purpose: In 2021, Lemke et al. described the hypothesis of vitamin D3 resistance as a cause of autoimmune diseases, justifying the high-dose vitamin D therapy protocol. They reviewed the evidence in the literature supporting the use of high doses of vitamin D for treating autoimmune diseases. However, hypercalcemia and subsequent impaired renal function may be the primary concerns against this protocol. This study aimed to evaluate the safety and efficacy of high doses of cholecalciferol associated with the conventional treatment of autoimmune uveitis.

Methods: Methods: We conducted a prospective, double-blind, randomized study that evaluated the clinical response and safety of using high doses of vitamin D3 (1,000 IU/kg/day) in patients with autoimmune uveitis, applied orally, for up to 1 year of treatment, accompanied by a strict low-calcium diet and regular daily intake of at least 2.5 L. We evaluated 65 patients with autoimmune uveitis, treated at the UNIFESP Ophthalmology Department from April 2019 to March 2022, with a mean age (\pm SD) of 41.7 ± 11.8 years, 70.7% female. We used serum 25-hydroxyvitamin D [25(OH)D] dosage and evaluated its correlation with intraocular inflammation activity in patients taking vitamin D compared to the placebo group.

Results: Results: The 25(OH)D values found before the intervention showed 83.1% of patients with vitamin D3 deficiency. The mean dose of vitamin D3 administered was $73,077 \pm 13,826$ IU per day. Measurement of over 1001 relevant laboratory parameters showed all mean values (\pm SD) 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/dL) and 24h urinary calcium secretion (193.50 ± 168.63 mg/24 h). The placebo group showed more cases of active uveitis at all clinical evaluation visits compared with the vitamin D group ($P' < 0.002$).

Conclusion: Conclusions: The administration of vitamin D3, in its inactive form (cholecalciferol), in doses much higher than commonly used, was a safe and effective therapeutic resource to improve ocular inflammation in autoimmune uveitis patients. Our data show the safety of using these doses of cholecalciferol, coupled with safety measures to avoid hypercalcemia, in patients under appropriate medical supervision.

Keywords: Keywords: autoimmune diseases; vitamin D; high-dose therapy; autoimmune uveitis; vitamin D receptor (VDR); single nucleotide polymorphisms (SNPs)

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(CO) CORNEA AND EXTERNAL DISEASE

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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

11. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Michelle de Lima Farah - PG1

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Advisor: Rubens Belfort Jr.

CEP Number: 50416421.8.0000.8098

5. ABSTRACT (REQUIRED):

Title: Superficial Automated Keratopigmentation for corneal leukomas

Author and Co-authors: Michelle de Lima Farah, Alexandre Costa, Samir Arbache, Rubens Belfort Jr

Purpose: The purpose of this study is to demonstrate the superficial automated keratopigmentation (SAK) for corneal leukomas using a tattoo machine.

Methods: Six patients that had corneal leukomas were included in this study. All the patients had visual acuity of less than 20/400 with no prognosis in one eye and were aesthetically unsatisfied. Before the procedure, biomicroscopy photos and corneal anterior segment OCT (Avanti) were performed. The inks used in each patient were determined by the color of the fellow eye and the colors applied were brown (eagle brown, marrom escuro, bear brown, monkey brown), red (vermelho ferrari, redish and cinnamon) and black (jet black) from Electric Ink® brand. The frequency of micropunctures used was 60Hz in all corneas. Previously to the keratopigmentation, a total keratectomy was performed to have a better penetration of the pigment in the cornea. The Cheyenne® tattoo machine (MT.DERM GmbH - Gustav?Krone?St.3.- DE ? 14167 - Berlim, Germany and ANVISA register 80281110016) and its sterile cartridges with 1,3 and 5 needles were used. After the procedure, a bandage soft contact lens (BSCL) and topical corticosteroids and antibiotics were used. The patients were seen one day, seven days, one month and three months after the procedure and in each visit intraocular pressure was measured and biomicroscopy photos were taken.

Results: In all cases, the pigment was well deposited in the cornea and a good retention was observed. All patients were satisfied with the aesthetic result. In four cases, the epithelium recovery took 7-15 days and in two cases it took 30 days. Right after the procedure, all patients presented with 3+ conjunctival hyperemia and chemosis, but on the next day they only presented with conjunctival hyperemia of 2+ that got better after 7 to 15 days after the procedure. Only one patient presented significant pain one day after the procedure that got better after one week using BSCL, topical corticosteroids and antibiotics every 2 hours.

Conclusion: SAK is a fast and reproducible keratopigmentation technique for aesthetic purposes. A good penetration, diffusion and retention of the ink was demonstrated, proving the effectiveness of the intervention, with minimal complications. More studies should be conducted regarding this matter.

Keywords: Superficial automated keratopigmentation, corneal tattoo, corneal leukoma

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Methods
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Keywords

Poster guidelines:
90cm x 120cm

12. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Paula Marques Marinho - PG1
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Advisor: Rubens Belfort Jr.

CEP Number: 30725020.8.0000.5505

5. ABSTRACT (REQUIRED):

Title: Retinal autofluorescence findings after COVID-19

Author and Co-authors: Paula M. Marinho, Alléxya A. A. Marcos, Ana M. C. Branco, Walid M. Mourad, Victoria Sakamoto, Andre C. Romano, Michel Farah, Richard B. Rosen, Paulo Schor, Paulo Abraao, Heloisa Nascimento and Rubens Belfort Jr

Purpose: The main purpose of this study was to investigate the presence of retinal autofluorescence findings in COVID-19 patients.

Methods: Observational study conducted in São Paulo in 2020. Demographic, medical history, and concomitant events, as well as medications used, hospitalization details, and laboratory test results, were obtained. Patients underwent eye examination and multimodal imaging, including color, red-free, autofluorescence fundus photography and optical coherence tomography.

Results: Eighteen patients had autofluorescence findings (6 females, average age 54 years, range 31 to 86 years, 26 eyes). Hyper-autofluorescence findings were present in 6 patients, Hypo-autofluorescence in 14 patients, and 6 patients had mixed pattern lesions.

Conclusion: Autofluorescence may be an useful resource to detect lesions otherwise missed. The presence of hyper- autofluorescence speaks in favor of acuter lesions and towards a somewhat neglected RPE-choriocapillaris complex disfunction. Further investigation is mandatory to better understand the pathophysiology and presumed long term implications.

Keywords: Coronavirus, SARS-CoV-2 disease, Eye, Optical coherence tomography, Autofluorescence

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Keywords

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13. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Melina Correia Morales - PG1
e-mail: melcmorales@hotmail.com

Advisor: Norma Allemann

CEP Number: 0886/2020

5. ABSTRACT (REQUIRED):

Title: Concordance between clinical diagnosis and histopathology in 217 biopsied cases at Ocular Oncology service.

Author and Co-authors: Melina Correia Morales, Arieli Fernanda Pereira dos Santos, Arthur Gustavo Fernandes, Norma Allemann.

Purpose: To evaluate concordance between clinical diagnosis and histopathology in the ocular oncology service, and which tumors should raise more concern of possible misdiagnoses.

Methods: Retrospective study that included 217 biopsies performed between the years of 2016 and 2019 at the Ocular Oncology Service at UNIFESP. Data were collected regarding sex, year of surgery, clinical and histopathological diagnosis, that were compared.

Results: A total of 217 surgical cases were included. The number of biopsies per year was similar and there was no disparity between sex (52.5% were male). Ocular surface biopsies were majority (89.4%) and 10.6% were intraocular tumors (100%, uveal melanomas). Overall concordance in clinical diagnosis and histopathology result was 82.9%: 100% for intraocular and 80.9% for ocular surface tumors. Considering misdiagnoses, 51% were suspected to be cancerous (50%, squamous neoplasia) but were benign (papilloma, granuloma, chronic conjunctivitis), 35% had the same nature on diagnostic hypotheses and pathology, and 14% were suspected to be benign, but pathology resulted in malignancy. At this last group, papilliform carcinoma was the most misdiagnosed tumor, with clinical diagnosis of papilloma.

Conclusion: In the group of intraocular tumors, misdiagnosis rate after enucleation was 0%, similar to literature that reports a rate of 0.3%. In the ocular surface group, misdiagnosis was 19.1 %, but only 2.6% proved to be cancerous lesions being undervalued, most frequently papilliform carcinoma simulating papilloma.

Keywords: Ocular Surface; Intraocular; Tumor; Pathology; Oncology; Biopsy.

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(TU) TUMORS AND PATHOLOGY

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Poster guidelines:
90cm x 120cm

14. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Camile Fagundes Freitas De Tonin - PG1

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Advisor: Norma Allemann

CEP Number: 86896418.8.3001.5505

5. ABSTRACT (REQUIRED):

Title: Correlation of optical tomographic patterns to histopathology of ocular surface lesions

Author and Co-authors: Tonin C, Forseto A, Allemann N.

Purpose: To correlate tomographic optical patterns obtained with anterior segment optical coherence tomography (AS-OCT) with histopathology after biopsy of ocular surface (OS) lesions, to establish diagnostic criteria that, associated with clinical evaluation, may increase preoperative diagnostic accuracy.

Methods: Patients selected at HOS with OS lesions after ophthalmologic exam including ectoscopy, optical biomicroscopy, photo-documentation, longitudinal and transverse OCT scans (SD-OCT, Avanti RTVue, Optovue, cornea anterior module CAM-L), surgical planning, presumed diagnostic hypothesis, and the histopathology of the specimen. Thirty patients included presented: conjunctival nevus (9 eyes), squamous neoplasia (9 eyes), squamous cell carcinoma (1 eyes), epithelial hyperplasia (1 eye), seborrheic keratosis (1 eye), papilloma (2 eyes), pyogenic granuloma (1 eye), melanoma (1 eye), pterygium (3 eyes), lymphoma (1 eye), conjunctival capillary hemangioma (1 eye), basophilic collagen degeneration (1 eye).

Results: Partial analysis comparing tomographic patterns and histopathology allowed: a) identification of the involved layer of the cornea or conjunctiva (epithelial or sub-epithelial), b) correlation of tomographic characteristics of the internal structure and histological architecture considering density, homogeneity and artifacts. Main OCT patterns presented in conjunctival neoplasia were epithelial thickening and hyper-reflectivity, in nevi, epithelial/sub-epithelial thickening, some with cystic areas, and in papilloma, homogeneous internal reflectivity similar to squamous neoplasia, with difficult differentiation. Melanoma and lymphoma have very different tomographic aspects: melanoma is a heterogeneous lesion that promotes intense posterior shading with difficult delimitation from adjacent tissues, unlike lymphoma, a homogeneous medium reflectivity and well-defined lesion. Histologic analysis included: Epithelial and sub-epithelial lesions.

Conclusion: A tomographic-histological correlation favors a preoperative diagnosis of ocular surface lesions using anterior segment tomography, postponing or even avoiding the need for excisional biopsy. AS-OCT can be limited to artifacts inherent to internal structure, and atypical intra-lesion aspects may be an indication for an excisional procedure.

Keywords: S-OCT (anterior segment optical coherence tomography), ocular surface lesions.

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(RE) RETINA AND VITREOUS

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ANGIOGENESIS

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

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Advisor: Norma Allemann

CEP Number: 50993121.3.0000.5505

5. ABSTRACT (REQUIRED):

Title: Validation of ROPScore and WINROP to predict development and severity of retinopathy of prematurity in a Tertiary Referral Hospital

Author and Co-authors: Amanda F. L. Morais, Luisa M. Hopker, Nilva S. B. M. Ambrogini, Norma Allemann

Purpose: To evaluate sensitivity, specificity, positive and negative predictive values of ROPScore and WINROP to prediction of risk to develop retinopathy of prematurity (ROP) or severe ROP aiming to possibly reduce the amount of eye exams requirements for preterm newborns.

Methods: Retrospective evaluation of medical records of preterm newborns with birth weight '<' 1,500 g and/or gestational age '<' 32 weeks at the ?Hospital do Trabalhador? in Curitiba, South of Brazil, in 2020. The ROPScore is based on cumulative risk factors such as oxygen therapy, blood transfusions and proportional weight gain. The WINROP score assesses the weekly weight gain to predict the development of ROP. High score values indicate a severe risk of developing severe ROP. SPSS Statistic version 22.0. was used for statistical analysis.

Results: Analyzing preterm infants examined in 2020 (n=45), the ROPScore reached a sensitivity of 100% for both the development of ROP and severe ROP. Specificity was 7.14% for the onset of ROP and 43.58% for severe ROP. Negative predictive value for both ROP and severe ROP was 100%. A positive predictive value of 38.09% and 18.51% was obtained for ROP and for severe ROP respectively. Mean ROPScore was 15.26 ± 2.48 . It is still necessary to calculate the statistical data associated with the WINROP algorithm.

Conclusion: The ROPScore was useful to predict preterm infants at risk of developing ROP and severe ROP in a tertiary referral hospital. Further analysis of a larger sample from 8 years will be performed. The validation of these scores and their inclusion into guidelines for ROP screening around the world may suggest a decrease in frequency of eye examinations for low-risk patients.

Keywords: Retinopathy of prematurity; ROPScore; WINROP; Risk factors; Prediction model

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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
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Abstract should contain:

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

Poster guidelines:
90cm x 120cm

16. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Alessandra Akemi Kusabara - PG1
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Advisor: Norma Allemann

CEP Number: 4890172

5. ABSTRACT (REQUIRED):

Title: Glaucoma drainage device position: anterior segment optical coherence tomography and ultrasound biomicroscopy

Author and Co-authors: Alessandra Akemi Kusabara, Daniel Martins Rocha, Norma Allemann

Purpose: To evaluate the position of aqueous shunts and its relationship with anterior segment structures using optical coherence tomography (AS-OCT) and ultrasound biomicroscopy (UBM).

Methods: Retrospective analysis of post operative UBM (Vumax II, Sonomed) and/or AS-OCT(Visante, Zeiss) images of 50 eyes from 50 patients with anterior chamber tube shunt from 2015 to 2020 at the Department of Ophthalmology and Visual Sciences UNIFESP. Exclusion criteria consisted of pars plana tube and poor-quality UBM or AS-OCT. Demographic data were obtained from electronic medical chart. Ethics committee approval under number 4890172.

Results: Evaluation of shunt position: entrance angle and extension of the intracameral portion were measured. Mean entrance angle was $22,8 \pm 11,16^\circ$ and mean tube extension was $5,7 \pm 2,64$ mm. Endothelial touch and shunt obstruction were also identified by imaging devices.

Conclusion: Anterior segment imaging was proven useful to evaluate anatomical relationship of aqueous shunt position, guiding the need for an early intervention, changes in surgical techniques and early detection of complications. The authors declare that there is no conflict of interest Dr. Kusabara received funding support from CAPES.

Keywords: Glaucoma, optical coherence tomography, ultrasound biomicroscopy, drainage device

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Purpose
Methods
Results,
Conclusion
Keywords

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

Name: Raphael de Faria Schumann - PG1
e-mail: rschumann0101@gmail.com

Advisor: Paulo Schor

CEP Number: 0388/2019

5. ABSTRACT (REQUIRED):

Title: Value-based Health Care Analysis in Ophthalmology

Author and Co-authors: Raphael de Faria Schumann Prof. Dr. Paulo Schor

Purpose: The aim of the study is to analyze the quality of the treatment cycle of patients undergoing facectomy at Hospital São Paulo. The patient's perception is collected through PREMs (Patient Reported Experience Measures) with structured interviews (or questionnaires) made with the participants at the end of the treatment cycle (3 months), then the PROMS (Patient Reported Outcome Measures) and the clinical outcomes will analyzed and finally we will make a metric proposal for the value equation.

Methods: 250 patients undergoing facectomy surgery (and who have been scheduled only for this procedure) will be randomly selected at the Ophthalmology Department of Hospital São Paulo and at IPEPO - Instituto da Visão and data will be collected regarding the patient's experience in relation to the quality of medical care, and clinical and surgical records will be analyzed. The research will be done three months after the procedure (enough time for patient discharge). With the results of the data collections, statistical tests will be carried out to obtain the main factors that influence the patient's experience and the clinical outcomes, and also to analyze if there is a correlation between them. Afterwards a metric will be proposed to calculate the quality of care. Demographic data will also be collected for the analysis of population characteristics and the relationship with possible biases.

Results: So far over 400 patients files were randomly extracted and underwent epidemiological analysis and also 150 interviews were conducted. The average OR time was 62 minutes. The percentage of patients who had best final visual acuity of 20/40 or better was 47,84%.

Conclusion: Further analysis is necessary so that we can have a better understanding of the impact of the clinical outcomes in patient's opinion regarding their journey during the treatment cycle and to study the relationship between these two indicators.

Keywords: value-based facectomy cataract vbhc

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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>18. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Thayze Melo Matins - PG1 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>IMAGING</p>	<p>5. ABSTRACT (REQUIRED): Title: OCULAR GLOBE GROWTH IN CHILDREN WITH CONGENITAL ZIKA SYNDROME</p> <p>Author and Co-authors: Thayze T. Martins¹, Antonio C. Diniz Netto¹, Nathalia Teixeira¹, Camila V. Ventura¹, Mauricio Maia², Cristina Muccioli² 1Altino Ventura Foundation - FAV 2Federal University of Sao Paulo - Unifesp</p> <p>Purpose: To evaluate the ocular growth of eyes of Congenital Zika Syndrome (CZS) infants measured by ultrasound(US)</p> <p>Methods: Single-center and retrospective study conducted at the Altino Ventura Foundation (FAV), Recife, Brazil, with children with confirmed or presumed diagnosis of CZS at birth. The subjects underwent two ocular US (UltraScan Imaging System, Alcon) by the same ophthalmologist to document the ocular axial length (AL) at least one year apart, using the immersion B-scan ultrasonography technique. Data was reviewed by a retinal specialist and compared to healthy eyes pattern, according to Sampaolesi ocular growth rate. The research was approved by the Institutional Review Board of FAV and São Paulo Federal University (Unifesp) (Approval number: 4.507.542).</p> <p>Results: Twenty eyes of 10 children were analyzed. Three(30%) were female and 7(70%) were male. Nine(90%) children were born full-term and 1(10%) preterm. All children had microcephaly, 10(50%) eyes had enlarged papillary cupping, and none presented congenital cataract or vitreous abnormalities. At the first exam, the children had 1.7mo [Standard deviation 0.5mo](range, 1?2) and 30.8[6.8]mo (range,18?35) at the second. The mean AL was 18.2[0.8]mm (range,17.2?19.5) at the initial exam and 21.3[1.4]mm (range, 18.9?23.2) at the second evaluation (p<'0.001). The distribution in percentile of growth: first exam, 5(25%) eyes below the 5th percentile,13(65%) eyes between 5th and 50th percentiles,2(10%) eyes between 50th and 95th percentiles. At the final exam,5(25%) eyes below the 5th percentile,11(55%) eyes between 5th and 50th percentiles,4(20%) eyes between 50th and 95th percentiles. The mean spherical equivalent (SE) of these eyes were 1.5[2.2]diopters (range, -4?6) at the initial and 0.7[2.8]diopters (range, -6.7?5) at the final exam. There was no statistically significant correlation between the AL and the visual acuity(p=0.231 initial, p=0.503 final).</p> <p>Conclusion: Most eyes were in accordance with Sampaolesi's rate and maintained the hyperopic pattern both in the evaluation of the AL and the SE. Financial support: Altino Ventura Foundation</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>	
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(EP) EPIDEMIOLOGY

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Purpose
Methods
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Keywords

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19. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Adriana de Oliveira Lima Gois - PG1
e-mail: adrianaagoismd@gmail.com

Advisor: Mauricio Maia

CEP Number: 62837822.0.0000.5532

5. ABSTRACT (REQUIRED):

Title: Evaluation of the Epidemiological Profile of Patients with Retinopathy of Prematurity (ROP) in the State of Pernambuco in the last 10 years

Author and Co-authors: Adriana L. Gois 1, Camila Ventura 2, Mauricio Maia 2 1. DINTER - FAV/UNIFESP 2. PhD from the Department of Ophthalmology and Visual Sciences (UNIFESP)

Purpose: To investigate the epidemiological profile in the last 10 years of retinopathy of prematurity (ROP) in Pernambuco ? parcial results.

Methods: Ambidirectional study with newborns, with ROP. As inclusion criteria, infants with gestational age less than or equal to 32 weeks and/or weight less than or equal to 1,500 grams and/or who had been on oxygen for seven or more days were selected. Screening was performed by ophthalmologists trained to evaluate premature infants with criteria for ROP. A total of 8 maternity hospitals with neonatal ICUs in the State of Pernambuco associated with the Brazilian Unified Health System participated in the study. Sociodemographic and clinical variables were evaluated. Patients with other ophthalmologic comorbidities were excluded. Descriptive and statistical analyses were performed using the software R version 4.0.0. The significance level considered in all tests was 0.05.

Results: A total of 1082 patients were evaluated from January 2014 to December 2018, of these, 562 were female and 520 were male. 2148 eyes out of the total 2164 eyes were evaluated, of these, 1251 eyes had no ROP, 440 had ROP stage 1, 285 had ROP stage 2, 155 ROP stage 3 and 7 eyes ROP stage 4. Of the 1082 patients only 509 had oxygen therapy information in the medical record, of which (11 patients) did not have oxygen. The mean birth weight was 1072.5g (Standart Deviation -SD 265.5). A total of 54 patients required retinal laser photocoagulation treatment. Newborns (NB) who followed the criteria for treatment had a mean birth weight of 940g (SD 251), which was lower than the mean weight of untreated patients (mean 1250g SD 280) (p less 0.001). The mean gestational age (GA) at birth was 28.35 weeks (SD 2.55) and the mean GA at birth of the treated NB was 26.9 weeks (SD 2.52), which was lower compared to the untreated NB at 30.2 weeks (SD 2.56) (p less 0.001).

Conclusion: The partial results of this study show that newborns with lower gestational age and lower birth weight were those who most needed treatment, which is in agreement with the world literature regarding the main risk factors for ROP.

Keywords: Retinophaty of Prematurity, Laser Photocoagulation, Oxygen Supplementation

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(RE) RETINA AND VITREOUS

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

Poster guidelines:
90cm x 120cm

20. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Alex Treiger Grupenmacher - PG1

e-mail: alexgrups@gmail.com

Advisor: Caio Regatieri

CEP Number: 990022081

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.

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

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.

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 neovascularization (CNV)-Bevacizumab model and the injection of progressively concentrated MHep, and combined MHep and Bevacizumab.

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.

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

Keywords: angiogenesis, anti-angiogenesis, anti-VEGF, heparin, modified heparin

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(RE) RETINA AND VITREOUS

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 Purpose
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 Keywords

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

Name: Luiz Fernando Teixeira - PG1
e-mail: luizfteixeira@hotmail.com

Advisor: Juliana Maria Ferraz Sallum

CEP Number: 0854/2019

5. ABSTRACT (REQUIRED):

Title: Superselective intra-arterial chemotherapy for retinoblastoma in 157 eyes.

Author and Co-authors: Luiz Fernando Teixeira, Jose Roberto Fonseca, Carla Renata Macedo, Monique Mangeon, Bruna Morales, Juliana M Ferraz Sallum

Purpose: To evaluate the experience using superselective intra-arterial chemotherapy (SIAC) for retinoblastoma in one referral center (GRAACC- UNIFESP) in São Paulo- Brazil.

Methods: Retrospective interventional study, approved by the institutional review board in the two centers. From April 2011 to June 2018, 157 eyes of 138 patients with retinoblastoma were treated with SIAC as primary or secondary therapy. One to three different drugs were used (Melphalan 3,0-7,5mg, Topotecan 0,3-1,0mg, Carboplatin 20-40mg) as necessary. Adjuvant therapy was used as needed to consolidate treatment. Ethics committee approval number - 0854/2019.

Results: The mean age of patients at first SIAC was 23 months (median 17, range 6-119 months). The treatment was secondary in 116 eyes (74%) and primary in 41 eyes. The eyes were classified using the International Classification of Retinoblastoma before any treatment as group A n=2(1%), group B n=19(12%), group C n=22(14%), group D n=80(51%) and group E n=34(22%). 553 infusions were performed, with a mean of three cycles per eye (median 3, range 1-12 cycles). Melphalan plus topotecan and carboplatin(M+T+C) were used in 70 eyes (44%), melphalan and topotecan (M+T) in 61 eyes (39%), melphalan (M) alone in 18 eyes (11%) and topotecan + carboplatin in 3 eyes (2%). Intravitreal chemotherapy with M, T or M+T was used as adjuvant treatment for vitreous disease in 49 eyes (31%), in 27% of naive retinoblastoma eyes and in 31% of rescue eyes. Brachytherapy was performed in 6 eyes (4%) as adjuvant therapy. No eye received external beam radiotherapy. All patients are alive with no metastatic disease, extra-ocular extension, or secondary leukemia. No neurological complications were reported. 128 eyes (82%) were preserved (100% group A, 89% group B, 95% group C, 85% group D and 59% group E eyes). 101 eyes (79%) were preserved after the first course of SIAC, 23 eyes (18%) after a second course and 4 eyes (3%) after a third course. No eye was enucleated due to a complication related to the SIAC.

Conclusion: The use of SIAC as primary or secondary therapy modality to treat naive or recurrent- refractory retinoblastoma showed successfully results in this set of patients. Most eyes (79%) were saved after the first course of SIAC.

Keywords: Retinoblastoma, intra-arterial chemotherapy

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Methods
Results,
Conclusion
Keywords

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

Name: Olivia Araujo Zin - PG1
e-mail: olivia.zin@gmail.com

Advisor: Juliana Maria Ferraz Sallum

CEP Number: 4.508.968

5. ABSTRACT (REQUIRED):

Title: Novel Mutation in LIM2 Causing Pediatric Cataract

Author and Co-authors: Olivia Zin, Luiza Neves, Fabiana Motta, Dafne Horovitz, Leticia Guida, Leonardo Gomes, Daniela Cunha, Daltro Castelar Jr, Ana Paula Rodrigues, Andrea Zin, Zilton Vasconcelos and Juliana Sallum

Purpose: To determine the genetic cause of pediatric cataract in a family with autosomal dominant pattern of inheritance using next-generation sequencing (NGS).

Methods: Clinical ophthalmological and genetic-dysmorphological evaluation were performed in 3 individuals of the same family (mother and 2 daughters) with pediatric cataract and in the unaffected father. Peripheral blood was collected and NGS performed.

Results: Bilateral pediatric cataract was an isolated finding in all affected members, with no ocular or systemic associations. Mother had a history of congenital cataract of unknown characteristics, since she was already pseudophakic. Eldest daughter presented with an anterior subcapsular cataract at age 13, while the youngest had a total cataract at 3 months old. A novel pathogenic heterozygotic variant was found in LIM 2 (c.514C>T, p.Arg172Cys) in all affected members and absent in the unaffected father. No previous descriptions were found in ClinVar or Cat-Map, a worldwide database of mutations associated with pediatric cataract.

Conclusion: LIM2 or lens fiber membrane intrinsic protein encodes a highly conserved protein called MP20, exclusively expressed in lens fiber cells that promotes cell-to-cell adhesion and junction communication within avascular lens fibers. Therefore, its adequate functioning is essential to guarantee lens transparency. Despite its well-known role in lens, only 7 other variants have been reported in LIM2, indicating scarcity of knowledge in this area. Even though all affected individuals presented the same mutation, age of symptoms and characteristics of cataract varied. Further studies are needed to understand differences if variable expressivity occurs. Timely pediatric cataract surgical treatment is efficient and does not depend on molecular diagnosis. Nonetheless, the latter is important since it may provide knowledge toward the development of new therapeutic possibilities. Once the causative mechanism is identified, degenerative progressive damage could be delayed and surgical treatment avoided. Therefore, we believe that our finding can contribute to better understanding of the genotype-phenotype correlations of LIM2, contributing to knowledge in such a needful field.

Keywords: genetics, pediatric cataract

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(RE) RETINA AND VITREOUS

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Abstract should contain:

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

Poster guidelines:
90cm x 120cm

23. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Caio Regatieri

CEP Number: CAAE 33842220.7.0000.5505

5. ABSTRACT (REQUIRED):

Title: Is Green fine but fair? Comparison of OCT normative databases and the need for publicly available data

Author and Co-authors: Nakayama LF, Ribeiro LZ, Pereira J, Regatieri CV

Purpose: Compare patients' demographic, including and excluding criteria, and apply statistical analysis in ophthalmological OCT equipment normative databases.

Methods: Data were retrieved from the publicly FDA database and equipment manual from the Carls Zeiss Cirrus, RTVue Avanti, Heidelberg Spectralis, and Topcon Triton. The following variables were compared: number of eyes and patients, inclusion and exclusion criteria, statistical approach, patient's sex, race/ethnicity, age, and participant country.

Results: The largest database is from the Avanti (640 eyes), with an expanded ethnic database available. The inclusion and exclusion criteria are similar, including patients with >18 years, normal visual field, and IOP >21mmHg, and excluding pathological eyes. The described participant's country is the USA, Germany, and Canada. The race/ethnicity standards are not uniformly applied to the datasets. The Spectralis database has more White patient representation, the Cirrus database has more Asian representation, and the Triton has more Black representation. In none of the databases, the race distribution is similar to the 2020 US population, with limited generalizability in other countries. In all databases, the statistical analysis applied is traditional Regression models.

Conclusion: The deployment of digital devices in healthcare is leading to exponential data generation and highlighting biases and unbalanced data distribution. Using digital ancillary imaging exams is becoming widespread in healthcare, with OCT helping diagnose and manage ocular pathologies. In all analyzed OCT devices, the data framework is static, with limited options for upgrades, lacking normative databases to new OCT modules, including anterior segment and angiography exams. To improve fairness and generalizability in OCT normative databases is essential the assessment of demographic characteristics, increase representativeness, and improve statistical analysis. Data sharing enables collaborative research, validation studies, and bias control, a valuable alternative to assess patient normality. The in-built normative databases in OCT equipment have limitations in fairness and generalizability. Caution in OCT normality report interpretation and more diverse, representative, and open-access datasets are needed.

Keywords: Optical Coherence Tomography, Fairness, Generalizability

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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.

(RE) RETINA AND VITREOUS

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

Poster guidelines:
90cm x 120cm

24. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Juliana Sallum

CEP Number: 0802P/2021

5. ABSTRACT (REQUIRED):

Title: Posterior microphthalmos with retinal involvement related to MFRP gene: a report of 11 Brazilian patients

Author and Co-authors: Rebeca A. S. Amaral, Olivia A. Zin, Remo T. Moraes, Fernanda B. O. Porto, Pedro C. Carricondo, Sergio L. G. Pimentel, Bernardo P. Kestelman, Sung E. S. Watanabe and Juliana M. F. Sallum.

Purpose: To describe the phenotype and genotype of 11 Brazilian patients with mutations in MFRP, posterior microphthalmos and retinal findings.

Methods: Complete ophthalmological evaluation was done in 4 different Brazilian centers. Genetic analysis was performed using commercial next generation sequencing panels for inherited retinal disorders.

Results: Ages of the patients ranged from 10 to 65 years and visual acuities from 0,05 to no perception of light. All were hyperopes (+4,25 to + 17,50) with a short axial length (14,4 mm to 18 mm). Common posterior segment features, though not present in all, were optic disc drusen, foveoschisis and retinal pigmentary changes. Isolated patients presented with macular atrophy, serous retinal detachment, and chorioretinal folds. The most common variant in MFRP found in our patients was a deletion in exon 5 (c.498delC, p.Asn267Thrfs*25), present in all except 2 patients. Other variants found were c.523C>T (p.Gln175*), c.298delG (p.Ala100Argfs*37), c.666del (p.Thr223Argfs*83) and the novel variant c.257C>A (p.Ala86Asp).

Conclusion: This is the first report of Brazilian patients and of the variant p.Ala86Asp in literature. Our cases confirm the previously reported phenotype of high hyperopia, optic disc drusen, alterations in foveal architecture, retinal pigmentary changes with loss of photoreceptor function and visual field constriction. Report of such rare condition is important to increase awareness to the phenotype of posterior microphthalmia with associated retinal conditions.

Keywords: microphthalmos; retinal dystrophies; retinitis pigmentosa

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Purpose
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Results,
Conclusion
Keywords

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

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Advisor: Michel Eid Farah

CEP Number: 1234

5. ABSTRACT (REQUIRED):

Title: Silicone oil droplets released from intravitreal injections of Aflibercept and Bevacizumab on Human Retinal Pigment Epithelium (ARPE-19) in vitro

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

Purpose: The 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 Human Retinal Pigment Epithelium (ARPE-19) cells in vitro.

Methods: Human ARPE-19 cells were cultured separately for 24 hours 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) and Reactive Oxygen Species (ROS). 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 '<'0.05 were considered statistically significant. The results were normalized to 100% and analyzed on GraphPad Prism.

Results: In SR and BD syringes, cell viability showed no difference between groups without or with agitation, although cell viability was slightly higher in Bevacizumab group without agitation on ARPE-19 cells (SR syringe p=0.340 and BD syringe p=0.533). When analyzed the ROS, in BD syringes the results had no difference when compared the groups without or with agitation, while in SR syringes the ROS has higher in groups with the anti-VEGF plus agitation (untreated p=0.1458, Bevacizumab p=0.0180 and Aflibercept p=0.0046).

Conclusion: The SO droplets released during the intravitreal injections, with or without agitation, had no effect on cell viability in both syringe brands tested on ARPE-19 cells, but affected the ROS levels on SR syringes increasing in groups with agitation treated with anti-VEGF. The results highlight that the agitation of the syringe during the intravitreal injection may contribute to inflammation. 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,syringe

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26. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Juliana Sallum

CEP Number: 2.180.162

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Poster guidelines:
90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: AFFORDANCES IN THE HOME ENVIRONMENT ON VISUAL AND MOTOR DEVELOPMENT OF CHILDREN WITH CONGENITAL ZIKA SYNDROME

Author and Co-authors: Raíne Borba Juliane Falcão Camila Ventura Lucélia Nóbrega Cláudia Marques Camilla Rocha Taciana Higino Carine Wiesiolek Juliana Sallum Liana Ventura

Purpose: To evaluate the relationship between affordances in the home environment with stimulation opportunities and visual and motor outcomes.

Methods: This cross-sectional study assessed children with congenital Zika syndrome (CZS). Developmental function vision milestones were assessed by using a behavioral battery test. The motor developmental outcome was assessed via Bayley Scale of Infant and Toddler Development, 3rd edition (BSID-3), and the Gross Motor Function Measure (GMFM). The Affordances in the Home Environment for Motor Development (AHEMD) questionnaire was applied to assess the stimulation opportunities at home.

Results: Eighty-five children with a mean age of 39.9 months were enrolled. Fifty-two children were evaluated for developmental function vision milestones, 27 of them scored for children with 5-6-month-old. Children with less visual impairment showed better responses on the scales BSID-3 and GMFM and had very good opportunities and a variety of stimulation in the household. BSID-3 showed that all children had significant developmental delays in motor domains, with a mean age of 2.2 months. More than 80 children did not initiate the movements nor maintain themselves in the required postures in the GMFM assessment. The scores for most of the AHEMD items were low and classified as "very weak" for 41 children. Regarding the stimulation with fine and gross motor materials at home, most children with microcephaly were considered to have very poor opportunities for stimulation compared with those without microcephaly who had very good opportunities.

Conclusion: These results indicate that visual and motor development including fine and gross motor skills of children with CZS seemed to be influenced by the amount of play equipment in the home and stimulation opportunities.

Keywords: Congenital Zika syndrome; Home affordances; Function vision; Motor development.

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Deadline: 11/2022

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

Poster guidelines:

90cm x 120cm

27. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Vinicius Campos Bergamo - PG1

e-mail: viniciusbergamo.epm@gmail.com

Advisor: Mauricio Maia

CEP Number: 0060/2018

5. ABSTRACT (REQUIRED):

Title: Different approaches and outcomes in anti-VEGF-related endophthalmitis in a Brazilian tertiary hospital: a 9-year retrospective case series

Author and Co-authors: Vinicius Campos Bergamo, MD ? Luis Filipe Nakayama, MD1 ? Nilva Simeren Bueno De Moraes, MD, PhD ? Maria Cecília Zorat Yu, MSc ? Ana Luiza Höfling-Lima, MD, PhD ? Maurício Maia, MD, PhD

Purpose: To determine the incidence of acute endophthalmitis after intravitreal anti-vascular endothelial growth factor (VEGF) injections and compare the visual and anatomic outcomes in eyes undergoing distinct treatments.

Methods: This retrospective case series was conducted in a tertiary university hospital in São Paulo, Brazil, from January 2011 to December 2019. Twenty-three eyes (23 patients) were enrolled with clinical signs suggestive of acute endophthalmitis after intravitreal anti-VEGF injections and positive cultures from vitreous samples. Based on the collected data, the patients were divided into three groups according to the primary treatment and the initial best-corrected visual acuity (BCVA): the intravitreal antibiotic injection group, worse vision pars plana vitrectomy (PPV) group, and the better-vision PPV group. The compared data included the BCVA before the infection, immediately before treatment, and 1 year after treatment of endophthalmitis, type of treatment, and anatomic changes on optical coherence tomography (OCT) images.

Results: Two treatment approaches were described in the 23 eyes: intravitreal antibiotic injection and PPV, which were chosen based on availability. According to the intervention and initial BCVA before treatment, three groups were identified: injection group, worse-vision PPV group, and better-vision PPV group. Intravitreal antibiotics were the primary treatment for 21.7%, and 78.3% of patients underwent PPV. In this group, 44.4% had an initial BCVA of light perception (LP), and 55.6% had a BCVA better than LP. A post-hoc analysis showed better BCVA at 1 year in the PPV group in patients with BCVA better than LP, although the development of epiretinal membranes occurred more often during follow-up in this group (odds ratio, 0.07, 95% confidence interval, 0.01-0.82, P = 0.035).

Conclusion: The incidence of acute intravitreal anti-VEGF-related endophthalmitis was 0.185%, higher than reported in the literature. performing PPV in eyes with BCVA better than LP may be a good treatment option.

Keywords: Anti-VEGF ? Endophthalmitis ? Intravitreal injections ? Retina ? Vitrectomy

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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.

(RE) RETINA AND VITREOUS

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Author
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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

28. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Erika Sayuri Yasaki - PG1
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Advisor: Juliana Sallum

CEP Number: 1057/2019

5. ABSTRACT (REQUIRED):

Title: Plasma ceramides role in diabetic retinopathy

Author and Co-authors: Yasaki ES, Carvalho LP and Sallum JMF

Purpose: Recent clinical studies have revealed a strong association between dyslipidemia and the development of diabetes retinopathy (DR). While the connections between diabetes-induced changes in lipid classes and the exact pathways leading to DR are still unclear, the role of sphingolipids ceramides (Cer) in the retina have been increasingly studied as they emerge as mediators of proliferation, survival, migration, neovascularization and death of retinal cells. Ceramides are bioactive sphingolipids that have a key structural and metabolic role in the maintenance of normal physiology but whose levels are altered during disease states. These molecules are considered an emerging biomarker of cardiovascular diseases, however, their clinical roles as a biomarker of DR have not been widely explored yet. The aim of this study is to review the literature about changes in the sphingolipid metabolism and describe the possible role of ceramide as a biomarker of DR.

Methods: Literature search on the role of plasma ceramides in diabetic retinopathy.

Results: We found evidence in the literature of plasma ceramides role as a biomarker in risk stratification of cardiovascular disease. This finding identifies opportunities for further 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.

Conclusion: This study identifies opportunities for further research on the role of ceramide levels in diabetic retinopathy and make it an attractive target for treating this disease.

Keywords: diabetes, ceramide, retinopathy, dyslipidemia

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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>29. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Felipe Pereira - PG1 e-mail: felipe_pera@hotmail.com</p> <p>Advisor: Eduardo Rodrigues</p> <p>CEP Number: 4.790.142</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: I-25 for Diabetic Macular Edema: a randomized controlled study</p> <p>Author and Co-authors: Pereira F; Oliveira T;Oliveira J;Pesquero V;Ribeiro L;Kuroiwa D; Malerbi F;Dib S;Farah M;Ambati J;Rodrigues E</p> <p>Purpose: To assess the short-term safety and efficacy of oral I-25 in patients diagnosed with central diabetic macular edema (DME)</p> <p>Methods: This is a prospective, single-center, double-masked, randomized, placebo-controlled study. Participants were randomly assigned (1:1) to oral 150mg I-25 solution or placebo twice a day for 60 days. At day 30, both groups received intravitreal bevacizumab. Main inclusion criteria were age 18 years or older, diabetes Mellitus type 1 or 2, best corrected visual acuity (BCVA) between 24 and 73 ETDRS letters (20/320 to 20/32 Snellen), central subfield thickness (CST) of 325 microns or more by Spectralis OCT and no history of DME treatment. Patients were excluded if they had a previous diagnosis of uveitis, severe liver or renal dysfunction, hepatitis B virus or HIV infection, or pregnancy. The primary efficacy outcome was CST change from baseline to day 30. Secondary outcomes include BCVA change from baseline to day 30 and CST and BCVA change from baseline to day 60. Adverse events were recorded throughout the study. This study was approved by the local ethic committee.</p> <p>Results: 17 eyes of 17 participants were included in this study. 9 eyes were assigned to the I-25 group and 8 eyes were assigned to the placebo group. The mean change in BCVA from baseline to day 30 was +5.7 (standard error of the mean (SEM) +\ - 3.1) and -1.4 (SEM +\ - 0.7) letters in the I-25 and placebo groups respectively. At day 60, the mean change in BCVA was +15 (SEM +\ - 4.7) and +4.4 (SEM +\ - 1.6) letters in the I-25 and placebo groups respectively. The mean change in CST from baseline to day 30 was -10 (SEM+\ - 26) and -33 (SEM+\ - 19) microns in the I-25 and placebo groups respectively. At day 60, the mean change was -123 (SEM+\ - 49) and -199 (SEM+\ - 47) microns in the I-25 and placebo groups respectively. No significant differences in local or systemic side effects were identified between both groups during the study period</p> <p>Conclusion: Oral I-25 significantly improved BCVA compared to placebo after 30 days and might act in a synergetic way with anti-VEGF drugs. No difference in CST was noticed between the two groups at all time points.</p> <p>Keywords: Diabetic macular edema, lamivudine,m</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

30. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Mauricio Maia

CEP Number: 2660310319

3. THEME: (REQUIRED) Check one:

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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Evaluation of the accuracy and precision of delivery devices used in intravitreal injection

Author and Co-authors: Agra, LLM. Chagas, TA. Marques, AS. Araújo, RHC. Oliveira, LG. Nabuco, YVS. Melo, GB

Purpose: To evaluate residual volume and the delivered dose accuracy and precision of different syringes and needle used in intravitreal injections.

Methods: Eight syringe models (BD Ultrafine - with staked needle, Zero Residual BD Plastipak Brazil and Spain, Injekt-F, Omnifix-F, Norm-Ject and Ocuject, all seven tested with 2 needle model ? Zero Residual na TSK Invisible) were studied comparing residual and delivered volumes. The weight of the empty device was compared with the weight of the device with two different solutions (distilled water and glycerin) and with the weight after the solution was expelled. The measurements were done with a high-precision balance.

Results: The residual volume measured for BD Ultrafine, Zero Residual, BD Plastipak Brazil, Plastipak Spain, Injekt-F, Omnifix-F, Norm-Ject and Ocuject were respectively, 0.33mg, 1.53mg, 30.46mg, 40.53mg, 24.86mg, 25.67mg, 51.96mg, 1.40mg. With regard to the volume ejected from the syringe-needle set, there was an overdose in most evaluated devices, with a percentage increase in each syringe model, respectively, of: 7.8%, 4.4%, 17.9%, 19.3%, 9.3%, 15.9%, 16.9%, 0.7%.

Conclusion: Most evaluated syringe-needle sets showed a significant residual volume which, ultimately, can lead to a significant waste of medications used in intravitreal injections. The analysis of the volume effectively ejected from the set showed that an excessive amount of medication is usually injected into the treated eyes, which can lead to side effects due to excess of medications used, such as increased intraocular pressure and the risk of intraocular inflammation, in addition to an increased chance of retinal vascular occlusions.

Keywords: Accuracy, precision, residual volume, delivery devices, intravitreal injections

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90cm x 120cm

31. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Mariana Batista Gonçalves - PG1

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Advisor: Mauricio Maia

CEP Number: 04142-081

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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(RE) RETINA AND VITREOUS

32. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Caio Regatieri

CEP Number: 90330618.8.0000.5505

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Keywords

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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

Author and Co-authors: Nelson C. Capelanes, MD , Fernando K. Malerbi, MD, PhD , Eduardo A. Novais, MD, PhD , Caio Vinicius S. Regatieri, MD, PhD

Purpose: To assess macular vascular density evolution, macular thickness and functional outcomes after intravitreal dexamethasone implants for diabetic macular edema (DME) treatment.

Methods: Vascular density was evaluated with optical coherence tomography angiography in 21 eyes treated. 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 SCP 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 where there was 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.

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 ($p < 0.001$). However there was no improvement in contrast sensitivity after treatment.

Conclusion: Improved macular perfusion after treatment with Intravitreal dexamethasone implantation may be associated with modulation of leukostasis, when the release of cytokines release 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.

Keywords: diabetic macular edema; macular perfusion; optical coherence tomography angiography; dexamethasone; macular vessel density; leukostasis; diabetic retinopathy

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Poster guidelines:
90cm x 120cm

33. 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: HEAVY SILICONE OIL SURGICAL APPROACH AND RETROSPECTIVE CASE SERIES

Author and Co-authors: RAMON ANTUNES DE OLIVEIRA, VINICIUS OLIVEIRA PESQUERO, LUCAS ZAGO RIBEIRO, NILVA SIMEREN BUENO DE MORAES, RODRIGO ANTONIO BRANT FERNANDES, OCTAVIANO MAGALHAES JUNIOR, MAURICIO MAIA

Purpose: To demonstrate the usefulness of heavy silicone oil (HSO) as an alternative to overcome the challenges of performing vitrectomy to treat rhegmatogenous retinal detachment with proliferative vitreoretinopathy (PVR) and the complications associated with commonly used vitreous substitutes (expandable gases and standard silicone oil) that promote inferior PVR and redetachments.

Methods: A retrospective, observational study was performed that analyzed 29 patients who underwent surgery in one center from August 2014 to April 2021, using HSO to treat rhegmatogenous retinal detachment with PVR or mixed tractional and rhegmatogenous diabetic retinal detachment.

Results: Among the 29 patients, 27 (93.1%) underwent surgeries due to rhegmatogenous retinal detachment and two (6.9%) for diabetic retinal detachment. At the final visit, 11 (37.93%) had vision worse than 20/400 (range, 20/25 to light perception). The difference in the logarithm of the minimum angle of resolution between the baseline and final visual acuities was significant ($P=0.036$). The vision improved in 18 (62.07%) patients at the end of follow-up. Twenty-three (79.3%) patients required hypotensive eye drops at the final follow-up, three (10.3%) patients required additional glaucoma surgeries.

Conclusion: HSO is useful in selective cases, especially those with complex rhegmatogenous retinal detachments. Careful attention during surgical removal prevents undesired complications.

Keywords: heavy silicone oil, proliferative vitreoretinopathy, rhegmatogenous retinal detachment.

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Results,
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

34. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Caio Regatieri

CEP Number: 49171021.6.0000.5505

5. ABSTRACT (REQUIRED):

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

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

Purpose: We aimed to assess the feasibility of automated machine learning (AutoML) algorithms to predict binary outcomes from fundus images comparing different platforms.

Methods: We evaluated the outcomes from two different online-based platforms (Google Cloud AutoML Vision and AWS Rekognition) to create algorithms using a public consolidated diabetic retinopathy dataset (MESSIDOR-2) containing 1,744 diabetic fundus images, and a Brazilian dataset from UNIFESP AI group containing 16,266 images (BR-OPHTSET). The algorithms were created by single ophthalmologist with no coding experience. Images were allocated to the training, validation, and test datasets (80%, 10%, and 10%, respectively). The images were mainly evaluated as two-class classification focused on: laterality, gender identification, normality, diabetic retinopathy referrals, and optic disc cupping.

Results: Performance outcomes for diabetic retinopathy referral were similar between datasets and platforms, resulting in AUC of 0.95 and 0.97 (BR-OPHTSET), AUC of 0.906 and 0.937 (MESSIDOR-2) from Google AutoML and AWS, respectively. The other classifications tasks were evaluated only using the BR-OPHTSET, resulting in AUC of 0.774 (AWS) grading gender, 0.989 (Google) and 0.992 (AWS) grading laterality, and 0.857 (AWS) grading optic disc cupping referral.

Conclusion: In conclusion, the development of AutoML models for the prediction of two-class classification based on fundus images by ophthalmologists without coding experience is feasible, and comparable with the accuracy of traditional machine learning algorithms. Our future analysis will include comparison with other public datasets, test with other AutoML platforms, external validation of algorithms, and real-world implementation.

Keywords: Artificial Intelligence; Dataset; Diabetic Retinopathy; Machine Learning;

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(RS) REFRACTIVE SURGERY

35. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Wallace Chamon

CEP Number: CAAE 16813219.6.1001.5505

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5. ABSTRACT (REQUIRED):

Title: Development of Convolutional Neural Networks for Keratoconus Detection on Topography Images

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 devise a method for testing and development of computer vision neural networks to evaluate cornea profiles.

Methods: Retrospective observational study based on 83,900 anterior curvature sagittal maps collected from a Scheimpflug device. According to the Topographic Keratoconus Classification (TKC), 5,000 normal images and 5,000 keratoconus images (KC2) were randomly selected. Different original neural network architectures were developed for keratoconus detection using 6,000, 2,000, and 2,000 images for training, validation, and testing, respectively. Variable models of image color, size, and batch size were tested. Sensitivity and specificity of each model were compared. Finally, a convolutional neural network (CNN) with optimal parameters was tested on grayscale and colored images.

Results: No significant difference in sensitivity or specificity was detected between training models. The final CNN achieved 99.02% sensitivity and 99.87% specificity for keratoconus recognition using grayscale images. For colored images, 99.25% sensitivity and 99.87% specificity were attained.

Conclusion: Image color, size, and batch size for training the neural network did not impact the model performance. A method was successfully implemented for the development of a CNN capable of identifying keratoconus on grayscale and colored images with similar sensitivity and specificity.

Keywords: Artificial Intelligence; Computer Vision; Convolutional Neural Network; Keratoconus

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(RS) REFRACTIVE SURGERY

36. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Renato Ambrosio

CEP Number: 4.050.934

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5. ABSTRACT (REQUIRED):

Title: Ectasia Risk Assessment before Surface Ablation: Two Case Reports of Ectasia after PRK

Author and Co-authors: Louise Pellegrino Gomes Esporcatte Renato Ambrósio Jr

Purpose: To report two cases of bilateral ectasia after PRK with preoperative imaging tests indicating relatively standard topographic and tomographic indices but abnormal biomechanics.

Methods: A case report of two patients undergoing PRK at Shiraz University of Medical Sciences, Iran. Both patients performed preoperative exams as Placido-disk-based corneal topography, tomography with Orbscan, and Pentacam HR tomography and biomechanical assessment with Corvis ST. In one patient, the PRK was performed with WaveLight EX 500 excimer laser, and on the other, with Technolas 217z laser.

Results: A 23-year-old male with preoperative refraction of -2.25 D (20/20) in both eyes. with normal Placido topography. The preoperative CCT was 533 μ m in OD and 538 μ m in OS, the BAD-D was 1.75 (>1.6) and 2.33, and CBI and TBI values of 0.95 and 0.49 for the OD and 0.8 and 0.5 for the OS. One and a half years after PRK his CDVA of OS was 20/60 (-2.25/- 6.75x150). Kmax was 46.1D in the OD and 62.1D in the OS. Both eyes were diagnosed with ectasia after PRK. In the Corvis ST examination of the ectatic cornea, the CBI-LVC score was 0 for the OD and 0.12 for the OS. Another 23-year-old male with refraction -4.75/-0.25x20 in OD and -4.25/-0.50x19 in OS (20/20). Preoperative Placido-disk-based topography revealed a symmetric bowtie pattern in both eyes with a slight skewing of the inferior lobe OS. The preoperative CCT was 516 μ m in OD and 514 μ m in OS, BAD-D values were 1.11 and 1.12, CBI and TBI values were 0.42 and 0.49 in the OD and 0.37 and 0.69 in the OS. Five years after the surgery the axial curvature map showed inferior steepening and thinning of the cornea. Kmax values were 60.8 and 51.8 D. The epithelial thickness map showed an epithelial doughnut sign in the OD. Both eyes were diagnosed with ectasia.

Conclusion: Two cases of bilateral ectasia after PRK are presented, demonstrating the current challenge of identifying ectasia risk among refractive candidates. The preoperative imaging tests indicated relatively normal topographic and tomographic indices but abnormal biomechanics, considering the data from Corvis ST and its integration with Pentacam. Such cases illustrate the significance of biomechanical assessment for detecting corneas with high susceptibility to ectasia before refractive surgeries.

Keywords: PRK; ectasia pos PRK; corneal biomechanics

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Keywords

Poster guidelines:

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37. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Gustavo Rosa Gameiro - PG1

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Advisor: Paulo Schor

CEP Number: 1024/09

5. ABSTRACT (REQUIRED):

Title: Hemifacial Spasm: gene expression, immunohistochemical, metabolic and morphometric alterations

Author and Co-authors: Gustavo Rosa Gameiro, Midori H. Osaki, Teissy Osaki, Rubens Belfort Jr, Paulo Schor, Suely K. N. Marie, Tammy H. Osaki

Purpose: No previous study assessed gene expression, immunohistochemical, metabolic and morphometric alterations in orbicularis oculi muscle (OOM) in affected and non-affected hemifacial spasm (HFS) patients, compared to samples obtained from healthy subjects. We aimed to investigate these differences.

Methods: High-throughput next generation RNA sequencing was performed (Illumina Inc, San Diego, USA) in 18 orbicularis oculi samples from 6 untreated patients with HFS (both eyelids) and 6 controls (one eyelid). Over-Representation Analysis (ORA) using WebGestalt (WEB-based Gene Set Analysis Toolkit) identified the most significant pathways and genes involved in HFS pathogenesis. Analogously, OOM from 8 HFS and 6 healthy subjects were prepared using hematoxylin and eosin, nicotinamide adenine dinucleotide tetrazolium reductase, cytochrome oxidase, succinic dehydrogenase, gomori staining and monoclonal antibodies against myosin slow and myosin fast. A digital image analysis software (ImageJ) was used for objective analysis.

Results: In the molecular aspect, out of 16,187 genes analyzed, 280 were found differentially expressed (DE) comparing the clinically affected side of HFS patients to controls? eyelids. Threshold to log2 (fold-change) was 0.7 and $p < 0.05$. DE upregulated genes were 239 and downregulated, 41. ORA revealed a profile in favor to muscle contraction, myogenesis and slow fiber transformation. In addition, OOM fiber area was significantly greater in both affected ($p = 0.038$) and non-affected sides ($p = 0.001$) of HFS samples, a significantly greater number of oxidative fibers was observed in both affected and non-affected sides of HFS patients ($p < 0.001$ for both) and a significantly greater percentage of slow fibers was observed in the affected side of HFS patients ($p = 0.001$) compared to control subjects.

Conclusion: This study's findings suggest that repeated chronic OOM contractions lead to fiber hypertrophy, increased mitochondrial metabolism, and possible conversion of fast-twitch into slow-twitch orbicularis oculi muscle fibers in patients with HFS, virgins of treatment. This hypothesis is corroborated not only in morphological, but also in molecular levels with gene expression alterations.

Keywords: transcriptome; hemifacial spasm; orbicularis oculi; immunohistochemistry; next-generation sequencing

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(RS) REFRACTIVE SURGERY

38. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Adriana Falcão Veloso Lyra - PG1

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Advisor: Walton Nosé

CEP Number: 52041345

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5. ABSTRACT (REQUIRED):

Title: Evaluation of high order aberrations in regular corneas and their relation to epithelial remodeling in patients undergoing topoguided femtolasik (Contoura®) in one eye and customized by asphericity (Custom-Q®) in contralateral eye: a randomizedI and doubl

Author and Co-authors: Lyra, Adriana F.V, Alves, Ermano M, Montenegro, Afra A., Parente, Natália S, Cardoso, Manuela T, Alves, Lucas M, Maia, Carolina B, Fontes, Bruno M, Nose, Walton

Purpose: To study the total corneal RMS and pre- and postoperative epithelial remodeling and thickness of eyes undergoing refractive surgery with the customized asphericity technique (Custom-Q) in one eye and Topoguided (Contoura) in the contralateral eye on the surface of regular corneas

Methods: Prospective, randomized, double-blind study that evaluated 96 eyes. All patients underwent pre- and postoperative Epithelial Mapping and Corneal Tomography to assess epithelial remodeling and study high-order aberrations in the cornea.

Results: 96 eyes from 48 patients (27 men) participated in the statistical analysis, with a mean age of 28.4 years, with a standard deviation of 4.3 years. Uncorrected visual acuity of 20/20 was achieved in 99% of patients in both groups. In relation to the study of the corneal epithelium in the preoperative period, 17 sectors were evaluated regarding their thickness, with no statistical difference between the groups in the pre and postoperative periods ($P > .05$). There was no statistically significant difference between the groups when we compared the total corneal RMS assessed by the Zernike map of the Galilei G6 pre and postoperatively in the Custom-Q group ($P > .05$), with a statistical difference when we compared Coma and Trifoil between groups ($P' < .05$)

Conclusion: At 3 months postoperatively, there was no statistical difference between the epithelial remodeling in the 17 quadrants evaluated between the two techniques, which suggests that the different treatment strategies induce their corrections in the corneal stroma. There was a statistically significant difference between the groups when comparing the Coma and the Cornea Trifoil assessed by the Zernike map of the Galilei G6 postoperatively ($P' < .05$), but not in the total RMS.

Keywords: Epithelial remodeling; Contoura; Custom Q; Femtolasik; RMS

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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.
(PL) OCULOPLASTICS SURGERY

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Deadline: 11/2022

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Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

39. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Cristina Yabumoto - PG1
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Advisor: Tammy Osaki

CEP Number: 0534/2018

5. ABSTRACT (REQUIRED):

Title: Eye Aspect Ratio to assess hemifacial spasm patients

Author and Co-authors: Cristina Yabumoto, Midori H. Osaki, Gustavo Gameiro, Mauro Campos, Tammy H.Osaki

Purpose: The eye aspect ratio (EAR) is an algorithm used in some accident-avoidance automotive systems that estimates the eye's landmark positions, using a single scalar quantity, which represents the level of eye opening in each frame. The effect of botulinum toxin injections in hemifacial spasm patients is usually assessed using grading systems. However, these tools do not permit to accurately assess the treatment effect. We aimed to investigate if the eye aspect ratio could be used to objectively assess the therapeutic effects of botulinum toxin (BTX) in these patients.

Methods: Nineteen patients with hemifacial spasm (HFS) were evaluated before and 15 days after receiving onabotulinumtoxinA injections. Nineteen age-matched control subjects were also assessed. Pre- and post-treatment eye aspect ratios were assessed using a custom-made software analyzing 3-minutes videos recorded with a smartphone (Iphone 6S, Apple) camera. Three grading systems were also applied before and after treatment: Rosenberg, Dysfunction questionnaire and Jankovic Rating Scale.

Results: BTX injections led to a significant increase in EAR of the affected side in HFS patients: +10.4% ($p=0.017$), compared to baseline. EAR before BoNT applications were significantly lower (-16.2%) on the affected side of HFS patients when compared to normal controls ($p=0.004$). After BoNT injections, no statistically significant difference was observed for EAR between the affected side and controls ($p=0.20$). A significant reduction in all evaluated grading systems was also observed after treatment: Rosenberg: 7.16 ± 7.06 and 3.58 ± 3.50 , $p = 0.01$, Dysfunction questionnaire: 9.08 ± 3.02 and 7.08 ± 0.99 , $p = 0.04$, Jankovic Rating Scale: 5.58 ± 1.83 and 1.58 ± 0.99 , $p = 0.0005$.

Conclusion: The eye aspect ratio, obtained with a smartphone and a custom-made software, permitted to objectively assess patients with HFS. Further refinement of the custom-made software presented herein is being conducted, so that it can be made available to the medical community.

Keywords: hemifacial spasm; botulinum toxin; Rosenberg questionnaire; Dysfunction questionnaire; Jankovic rating scale

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(RS) REFRACTIVE SURGERY

40. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 68996717.5.0000.5505

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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Applying and integrating Relational Tissue Altered (RTA)

Author and Co-authors: Aydano Machado Marcella Salomão Louise Esporcatte Bernardo Lopes Renato Ambrósio Jr

Purpose: The objective of this work is to apply the RTA (Relational Tissue Altered), a predictive computational model built to represent the impact of LVC on corneal structure, in an external dataset containing new stable and ectasia cases post LVC. As well as integrate RTA with traditional Pentacam parameters, such as BAD D, ART Max and IHD, in order to evaluate its contribution in clinical practice.

Methods: As a first step and baseline reference, we evaluated the individual performance of each studied variable using the area under the ROC curve (AUC) that combines sensitivity and specificity into a single value. In order to integrate RTA with BAD D, ART Max and IHD, we have chosen an artificial intelligence (AI) approach based on machine learning (ML) techniques to build a predictive model to classify between stable and ectasia. The developing process was based on knowledge discovery in databases (KDD) practice. The data from 270 eyes (270 patients) stables after refractive surgery with 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 27 eyes (15 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.

Results: The area under the ROC curve (AUC) of BAD D, ART Max and IHD were respectively 0.904, 0.857 and 0.771, looking at the parameters more related with the LVC procedure RTA, RSB and PTA they achieved 0.700, 0.563 and 0.487 as AUC values using the apex pachymetry and 0.844, 0.593 and 0.503 when the thinnest point as considered. The RTA was combined with BAD D, ART Max and IHD in a predictive model trained using ML algorithms and cross-validation techniques. The best model was acquired by neural networks with an AUC of 0.937 (0.815 of sensitivity and 0.956 of specificity using a cutoff of 0.117).

Conclusion: RTA achieved significantly better results when compared to RSB and PTA, and also could improve AUC, sensibility and specificity when integrated with which BAD D, ART Max and IHD.

Keywords: refractive surgery ; biomechanical impact ; RTA ; artificial intelligence ; machine learning

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Keywords

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

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Advisor: Ana Luisa Hogling

CEP Number: 1.423.852

5. ABSTRACT (REQUIRED):

Title: Evaluation of Rose Bengal photoactivated by green LED light activity alone or associated with Polyhexamethyl Biguanide and propamidine isethionate for in vitro inhibition of Acanthamoeba spp.

Author and Co-authors: Talita Trevizani Rocchetti, Larissa Fagundes Pinto, Carolina Silva Oliveira, Jarbas Caiado de Castro Neto2, Bruno Laissener, André Orlandi de Oliveira, Denise de Freitas, Ana Luisa Hofling-Lima

Purpose: To evaluate the activity of Rose Bengal (RB) photoactivated by green LED light alone or associated with Polyhexamethyl Biguanide (PHMB) and propamidine isethionate (Brolene®) for in vitro inhibition of Acanthamoeba spp..

Methods: One Acanthamoeba polyphaga isolate (CDC:V062) and one clinical sample (obtained from a case of keratitis by Acanthamoeba spp.) will be tested. The amoebas will be cultured in Peptone Yeast Glucose at 25°C for three days, centrifuged at 720 x g for 15 minutes (min) and the pellet resuspended in autoclaved distilled water. Amoeba concentrations will be adjusted at the rate of 105 trophozoites per treatment. Ten conditions will be performed in triplicate: [I.] without treatment, [II.] treatment with 0.1% RB exposed to green LED light for 12.5 min (5.4 J/cm²), [III.] 0.1% RB exposed green LED light for 12.5 min combined with 0.02% PHMB, [IV.] 0.1% RB exposed green LED light for 12.5 min combined with 0.06% PHMB, [V.] 0.1% RB exposed green LED light for 12.5 min combined with 0.1% Brolene®, [VI.] 0.1% RB exposed green LED light for 12.5 min combined with 0.02% PHMB and 0.1% Brolene®, [VII.] 0.1% RB exposed green LED light for 12.5 min combined with 0.06% PHMB and 0.1% Brolene®, [VIII.] 0.02% PHMB alone, [IX.] 0.06% PHMB alone, [X.] Brolene® 0.1% alone. The viability will be investigated by fluorescence microscopy using the ApoFlowEx FITC Kit (annexin V FITC + propidium iodide, PI) associated with the fluorescence dye 4',6-diamidino-2-phenylindole dihydrochloride (DAPI, 1:1000). The images will be acquired on the Nikon Eclipse TI-U microscope using an excitation wavelength of 488/525 for FITC, 488/617 for PI and 340/488 nm for DAPI, and analyzed in Image J software.

Results: Preliminary test with the Acanthamoeba polyphaga isolate (CDC:V062) was carried out and experiment steps outlined. Definitive results are in progress.

Conclusion: The combination of RB, Biguanide and/or Brolene may have better activity in the Acanthamoeba spp. inhibition than the treatments isolated.

Keywords: Acanthamoeba keratitis; photoactivated rose bengal; Polyhexamethyl Biguanide; propamidine isethionate; fluorescence microscopy

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(CO) CORNEA AND EXTERNAL DISEASE

42. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Mauro Campos

CEP Number: 04308918.1.0000.5505

3. THEME: (REQUIRED) Check one:

INFLAMMATION

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

Author and Co-authors: Murilo B Peres, Larissa R da Rosa, Priscila C Critovam, Renan P Cavalheiro, Yara M C S Michelacci, Mauro S Q Campos

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.

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 alternatively with 30% ethanol açai extract solution in BSS, 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.

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 $4,093 \pm 2.38 \mu\text{g}$ and $1.53 \pm 1.35 (p=0.02)$ for protein, 0.1 ± 0.03 and $0.08 \pm 0.06 (p=0.33)$ for DC, 0.1 ± 0.03 and 0.08 ± 0.05 for LC ($p=0.3$), $3.18 \pm 1.86 \mu\text{g}$ and $2.5 \pm 1.34 \mu\text{g}$ 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 $0.07 \pm 0.05 (p=0.03)$ for DC, 0.03 ± 0.01 and 0.08 ± 0.05 for LC ($p=0.00$), $1.24 \pm 1.16 \mu\text{g}$ and $2.51 \pm 2.02 \mu\text{g}$ 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.

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

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(LV) LOW VISION

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43. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Mauro Campos

CEP Number: 39149720.9.0000.5505

5. ABSTRACT (REQUIRED):

Title: Early Experience of Teleconsultation at an Early Visual Stimulation Service of Infantile Low Vision.

Author and Co-authors: Ana Carolina Carneiro, Mariana Antunes Davi, Marcela Santos, Marcia C. B. Lopes, Arthur G. Fernandes, Carolina P. B. Gracitelli, Celia Regina Nakanami, Mauro S. Campos, PhD.

Purpose: Since the COVID-19 pandemic, telemedicine has been highlighted among health studies, including the ophthalmological area, as an important and innovative tool in health systems. However, the success of this model depends on acceptance and experience from patients, medical and administrative team, even more than in-person service. The aim of this study is to evaluate the absenteeism rates, perception of satisfaction, and sociodemographic profile of patients assisted by the tele consultations model implemented during the pandemic for children with low vision at the Early Visual Stimulation (EVS) service of the Infantile Low Vision Sector at the Federal University of Sao Paulo.

Methods: All data of EVS appointments, in-person and telemedicine, collected from June/20 until June/21, of infantile patients were analyzed in terms of attendance and absenteeism rates. Socio-demographic analysis was carried out to characterize the study population. The perception of satisfaction was assessed by using the Net Promoter Score (NPS) within 48h of consultation. The NPS analysis was performed considering every appointment answer and results of in-person and telemedicine groups were compared by using Chi-Square test for the absenteeism rates and Mann-Whitney for NPS evaluation.

Results: A total of 667 consultations was analyzed, being 447 in-person and 220 by telemedicine. The absence rates were, respectively, 32.89% and 20.45% and the difference was statistically significant ($p=0.001$). The consultations belonged to 183 patients of which 98 (53.55%) were male, and the mean age was 2.87 ± 2.55 years old. Of the total, 25 (13.66%) were referred from the GRAACC service, 153 (83.61%) were residents of São Paulo state and the family income was R\$1000 - 1500 in 53 (28.96%) cases. The NPS assessment, performed in 337 consultations, was +83.46 to in-person and +94.95 in teleconsultation, with difference statistically significant ($p=0.0052$).

Conclusion: Telemedicine proved to be a viable tool for health care in the population studied, with lower rates of absenteeism and higher perception of satisfaction of the patient's guardian when compared to in-person consultations.

Keywords: Telemedicine, NPS, Infantile Low Vision

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44. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Renato Leca Galao - PG1
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Advisor: Ana Luisa Hogling

CEP Number: 09090-220

5. ABSTRACT (REQUIRED):

Title: PANEL OF TEAR AND SERUM BIOMARKERS IN KERATOCONUS

Author and Co-authors: Renato Galão Cerquinho Leça Fernando Luiz A Fonseca Ana Luisa Hofling-Lima Farah

Purpose: Evaluation of a group of tear and serum markers in keratoconus and compare them with a group of control cases, in an attempt to create a panel of biomarkers and deepen the knowledge about the pathogenesis of this corneal disease.

Methods: 36 individuals with keratoconus and 36 individuals without ophthalmological disorders to serve as controls. Schirmer's strips will be used for tear collection. The following tests will be analyzed in plasma and tear: anti-oxidant enzymes (catalase, superoxide dismutase, and glutathione-peroxidase), lutein, erythrocyte nuclear factor 2 (Nrf2), interleukins (1, 2, 6, 10), tumor necrosis factor alpha (TN alpha) and ultrasensitive C-reactive protein, ferritin, heparanase (all of them by gene expression) and 25(OH) Vitamin D3 (by electrochemiluminescence).

Results: So far, we have results of serum and tear levels of vitamin D3 in the keratoconus group, composed by 22 individuals, with a mean of 21.93 ng/ml (serum) and 57.5 ng/ml (tear) and in the control group, with 36 subjects and a mean levels of 29.68 ng/ml (serum) and above 100 ng/ml (tear). Statistical significance of $p < 0.05$ in plasma and $p < 0.00001$ in tears were found between the two groups. Given this large difference between tear and serum levels, we decided to assess vitamin D3 levels in another body fluid and opted for saliva. The plasma, tear and salivary levels of 12 individuals without eye diseases were then evaluated, and the average obtained was 90.71 ng/ml in tears, 86.46 in saliva and 25.77 ng/ml in plasma, with a statistical difference of $p < 0.00001$ between tear and plasma levels, as well as between salivary and plasma levels, no statistical difference was found between tear and salivary levels. These results may suggest that vitamin D3 in tear and saliva would be the free and physiologically most important portion of this vitamin.

Conclusion: From these results, we can assume that vitamin D3 plays an important role in the pathogenesis of keratoconus, and the follow-up of this study will be able to demonstrate this, we can also assume that vitamin D3 in tear and salivary fluids represents the free part of this vitamin, as it is in the tissues, and its level in these fluids may prove to be clinically more important than the serum level, and the follow-up of this study may also indicate this.

Keywords: keratoconus, tear, saliva, vitamin D3

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(EX) EXPERIMENTAL SURGERY

45. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: José Álvaro Pereira Gomes

CEP Number: 99700302

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(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

Deadline: 11/2022

FORMAT:

Abstract should contain:

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

Poster guidelines:
90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Treatment of Severe Acute Corneal Hydrops With Intrastromal Autologous Blood Injection

Author and Co-authors: Lucas Baldissera Tochetto Tais Hitomi Wakamatsu Flávio Eduardo Hirai Jose Alvaro 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 in patients with severe corneal hydrops.

Methods: We carried out a retrospective study of nineteen consecutive cases. They were examined in an outpatient clinic at the Federal University of São Paulo, Brazil, between April 2021 and November 2021 and underwent intrastromal autologous blood injection. The time taken for the Descemet's membrane to reattach, resolution of corneal edema and the best-corrected visual acuity (BCVA) were assessed postoperatively.

Results: Edema resolution occurred within 7 days in 5 patients, 11 in one month and 3 within 3 months after the procedure. The average period of persistence of corneal edema was 37.94 +/- 33.05 days (range, 6?124 days). The mean (SD) corneal thickness progressively decreased from 2.06 mm (0.71) on day 0 to 1.34 mm (0.65) on day 7, 0.85 mm (0.56) on day 30 and 0.57 mm (0.13) on day 90 after surgery ($p < 0.001$). The same results were observed for the mean (SD) Descemet's membrane detachment that decreased from 1.01 mm (0.75) to 0.44 mm (0.57), 0.24 mm (0.36) and 0.08 mm (0.11) on 1, 7, 30 and 90 days postoperative respectively ($p < 0.001$). In 3 months, the mean (SD) size of the DM break decreased from 1.12 (1.19) to 0.62 (0.84) ($p < 0.005$). Postoperatively, no significant side effect was noted except for three patients who developed hematocornea. The mean (SD) BVCA improved from 2.37 (0.66) to 0.41 (0.17) logMar ($p < 0.001$) at 3 months after surgery with hard-contact lens.

Conclusion: The technique of the application of autologous blood in the intrastromal region of the cornea can be effectively used as a treatment modality for the management of severe cases of acute corneal hydrops.

Keywords: Acute hydrps; autologous blood; keratoconus

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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.

(CO) CORNEA AND EXTERNAL DISEASE

3. THEME: (REQUIRED) Check one:

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Paper

Scientific Section Descriptions (two-letter code):

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Deadline: 11/2022

FORMAT:

Abstract should contain:

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

Poster guidelines:
90cm x 120cm

46. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Fábio Mendonça Xavier Andrade - PG1

e-mail: fabio.xavier@unifesp.br

Advisor: Denise Freitas

CEP Number: 71694217.4.0000.5505

5. ABSTRACT (REQUIRED):

Title: The effect of oral isotretinoin on meibography and ocular surface parameters of acne vulgaris patients

Author and Co-authors: Fabio Mendonca Xavier Andrade Flavio Hirai Tais Hitomi Wakamatsu Rebecca Ignacio Subira Medina Denise de Freitas

Purpose: To analyze and document alterations on meibomian glands morphology, tear film stability and other ocular surface parameters on first users of systemic isotretinoin for acne vulgaris.

Methods: Twenty-six (26) patients with acne vulgaris, age ranging from 14 to 28 years old and no prior systemic treatment, were enrolled to use isotretinoin on a fixed dosage of 0.5 mg/k. Ophthalmologic examination was performed before and after sixteen weeks. Oculus Keratograph 5M (Oculus, Wetzlar, Germany) was used to document non-contact meibography and other ocular surface parameters. Ocular surface disease index (OSDI), Schirmer test and visual acuity were also collected. Meibomian health score (MHS) was design especially to categorize isotretinoin induced meibography alterations.

Results: Twenty-six participants were included. Mean age was 17.5 years. No significant alterations were noticed in best-corrected visual acuity, Schirmer test and most ocular surface parameters, except for significant changes in MHS and OSDI.

Conclusion: systemic isotretinoin induced significant changes in MHS and OSDI scores without compromising other ocular surface parameters in first time users.

Keywords: isotretinoin ? meibography ? meibomian gland dysfunction ? meibomian gland atrophy

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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>47. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Dalton de Freitas Santoro - PG1 e-mail: daltonsantoro@me.com</p> <p>Advisor: Lauro Augusto</p> <p>CEP Number: 0442/2020</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Sars-CoV-2 detection in the ocular surface: beyond Viral Strain Virulence and Vaccination</p> <p>Author and Co-authors: Dalton F Santoro, Flavio E Hirai, Danielle D Conte, Ana L Hofling Lima, Luciene B de Sousa, Nancy CJ Bellei, Denise Freitas, Lauro A de Oliveira</p> <p>Purpose: To evaluate the presence of SARS-CoV-2 RNA from Omicron strains in the ocular surface of COVID-19 fully vaccinated patients and determine accuracy of different approaches of molecular testing on the ocular surface based on nasopharynx positivity status compared to detection of SARS-CoV-2 Delta strains and non-vaccinated patients.</p> <p>Methods: 199 individuals with suspected COVID-19 symptoms who underwent simultaneously nasopharynx and two different tear film collection techniques for RT-qPCR were included from March to August 2022. Only patients with Covid-19 confirmed by naso PCR (n=80) had their tear analyzed in a randomized fashion: one eye with the filter strip of Schirmer test and the contralateral eye with conjunctival swab/cytology in the inferior fornix. Accuracy of both ocular surface sampling techniques and their respective viral load was determined and compared to test accuracy and viral load achieved when leading with SARS-CoV-2 Delta strains and non-vaccinated individuals reported in a previous study from our group.</p> <p>Results: 199 individuals with suspected COVID-19 symptoms who underwent simultaneously nasopharynx and two different tear film collection techniques for RT-qPCR were included from March to August 2022. Only patients with Covid-19 confirmed by naso PCR (n=80) had their tear analyzed in a randomized fashion: one eye with the filter strip of Schirmer test and the contralateral eye with conjunctival swab/cytology in the inferior fornix. Accuracy of both ocular surface sampling techniques and their respective viral load was determined and compared to test accuracy and viral load achieved when leading with SARS-CoV-2 Delta strains and non-vaccinated individuals reported in a previous study from our group.</p> <p>Conclusion: Although with lower positivity rates when compared to Delta variant both Schirmer and conjunctival swab tests were similarly capable of detecting SARS-CoV-2 RNA from Omicron variant in the ocular surface by real-time RT-PCR, based on nasopharyngeal status. Ocular surface viral load was similar for both tests while comparing Delta vs. Omicron variants and were significantly lower compared to nasopharynx test.</p> <p>Keywords: COVID19, SARS-CoV-2, conjunctiva, tear film, RT-PCR</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>Deadline: 11/2022</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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Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

48. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Renata Cavalcanti Portela Boro - PGO

e-mail: renataportela13@gmail.com

Advisor: Denise Freitas

CEP Number: 1177/2018

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 Cecília Zorat-Yu, 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 for acanthamoeba; PCR for acanthamoeba

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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.

(RS) REFRACTIVE SURGERY

49. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Ermano de Melo Alves - PG1

e-mail: ermanomelo@gmail.com

Advisor: Paulo Schor

CEP Number: 52060165

3. THEME: (REQUIRED) Check one:

IMAGING

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Abstract should contain:

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

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: TIME AS A DETERMINING FUNCTION IN THE INDICATION AND EVOLUTION OF EYE SURGERIES: EVALUATION OF LASIK TO REDUCE HYPEROPIA AND INDUCE MYOPIA AS A TREATMENT FOR PRESBYOPIA.

Author and Co-authors: ERMANO DE MELO ALVES, PAULO SCHOR E BIANCA ARRUDA MANCHESTER DE QUEIROGA

Purpose: To analyze the importance of temporality in the patient who undergoes monovision LASIK for the correction of presbyopia and to understand the meaning of this search, their motivation, their fears, their adaptation and to analyze the meaning of the result in the quality of life through the patient's own voice

Methods: Qualitative research through semi-structured interviews with open questions and encouragement to report the experience without interruption or induction. We selected presbyopic or presbyopic with hyperopia individuals, some satisfied, others still adapting, some not completely adapted and some with retreatment. For content analysis we used Atlas.ti version 9.1 software for coding and organization by themes. We followed the following steps: pre-analysis, categorization, external validation, data presentation and discussion

Results: 364 citations were selected in 17 interviews with 8 men and 9 women between 40 and 55 years old. The citations formed 22 codes divided into themes and sub-themes: 1- Time and presbyopia (5 sub-themes), 2- Eyeglasses and their dependence (6 sub-themes), 3- The importance of near vision and surgery as a solution (4 sub-themes), 4- The sacrifice with adaptation (2 sub-themes) and the person that emerges at the end. In the discussion, we analyzed the quality of life in presbyopia and this condition as a time frame, the effects of the pandemic on the reports, the importance of facial aesthetics, the neurophysiological, mythological and philosophical relationship of eye surgery, beauty, memory and imagination, the importance of vision of and near vision, the surgical ritual, the effects of night lights and the patient's final judgment.

Conclusion: Temporality is closely connected with presbyopia surgery. The factors most related to the decision and the result were: temporality, aesthetics, fear, symbolism, hygiene, work, ritual, third-party opinion and personality. The doctor who has a real interest in the subject needs to deepen in areas of different human faculties outside ophthalmology

Keywords: lasik, presbyopia, monovision, temporality

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(CO) CORNEA AND EXTERNAL DISEASE

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Deadline: 11/2022

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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: Vanessa Favero Demeda - PG1

e-mail: vanessa.favero@gmail.com

Advisor: José Álvaro Pereira Gomes

CEP Number: 31031420.6.0000.5505

5. ABSTRACT (REQUIRED):

Title: Jett Plasma in the treatment of Dry Eye Disease secondary to Meibomian Gland Dysfunction

Author and Co-authors: Vanessa Favero Demeda, Rafael Jorge de Alcantara, Rossen Mihaylov Hazarbassanov, José Alvaro Pereira Gomes

Purpose: Assess the efficacy of Jett Plasma treatment in patients with Dry Eye Disease (DED) secondary to Meibomian Gland Dysfunction (MGD).

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 '<'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 preparation of the patients through 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, around 2 minutes. This procedure will be executed once a week, during 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.

Results: In progress

Conclusion: In progress

Keywords: Dry Eye Disease; Meibomian Gland Dysfunction

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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.

(CO) CORNEA AND EXTERNAL DISEASE

3. THEME: (REQUIRED) Check one:

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Title
Author
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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

51. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Rafael Jorge Alves de Alcântara - PG1

e-mail: rja.alcantara@gmail.com

Advisor: José Álvaro Pereira Gomes

CEP Number: 4.793.250

5. ABSTRACT (REQUIRED):

Title: Intense Pulsed Light in the Treatment of Dry Eye and Meibomian Gland Dysfunction in Patients with Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis

Author and Co-authors: Rafael Jorge Alves de Alcântara, Tais Hitomi Wakamatsu, Flavio Eduardo Hirai, Vanessa Favero Demeda, Myrna Serapião dos Santos, Telma Pereira Barreiro, José Álvaro Pereira Gomes

Purpose: Primary objective: to evaluate the efficacy of Intense Pulsed Light (IPL) in the treatment of dry eye disease (DED) and Meibomian gland dysfunction (MGD) in patients with Stevens-Johnson (SJS) and toxic epidermal necrolysis (TEN). Secondary objective: evaluate ocular surface characteristics, DED and MGD in this group of patients.

Methods: Prospective interventional study. 29 patients treated with LPI. Inclusion criteria: patients with SJS or TEN and ocular involvement in the chronic phase, over 18 years old, evidence of MGD and DED, consent/ability to maintain topical or systemic drugs in use and abstain from other medications for dry eye/DGM in the previous 60 days, during the time between screening visit and the end of study. Exclusion criteria: pregnant or breastfeeding women, epilepsy, immunosuppression, arrhythmias, eye surgery in the last 6 months, active eye infection or history of herpetic keratitis, psychiatric disorders that can interfere with full cooperation or with the subjective description of symptoms, use of photosensitizing drugs, tattoo, pigmented lesions or keloid in the area to be treated. The survey consisted of 5 visits. The patients were submitted to 3 IPL treatment sessions at D0, 2 weeks, and 4 weeks. An assessment protocol was applied at the pre-treatment visit, 4 weeks, 8 weeks and 12 weeks consisting of: OSDI, IDRA® (SBM SISTEMI, Italy): tear meniscus height, lipid layer, NIBUT, Conjunctival hyperemia, Schirmer 1, BUT with Fluorescein, Corneal staining with fluorescein, Conjunctival staining with lissamine green, Meibomian glands and eyelids evaluation (MES and MQS), Meibomyography, Level of MMP-9 InflamaDry®(Quidel Corporation, USA).

Results: In progress

Conclusion: In progress

Keywords: Intense pulsed light; Dry eye disease; Meibomian gland disease; Stevens-Johnson syndrome

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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.

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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

52. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Leonardo Guedes C. Marculino - PG1

e-mail: leomarcuino@hotmail.com

Advisor: José Álvaro Pereira Gomes

CEP Number: 79350917.0.0000.5505

5. ABSTRACT (REQUIRED):

Title: Prevalence and risk factors for dry eye disease: the Sao Paulo dry eye study

Author and Co-authors: Leonardo Guedes C. Marculino¹, Rossen Mihaylov Hazarbassanov¹, Nicolle Gilda Teixeira de Queiroz Hazarbassanov², Flavio Hirai¹, Jose Arthur P. Milhomens Filho¹, Tais Hitomi Wakamatsu¹, José A.P. Gomes¹.
Department of Ophthalmology and Visual Sciences,

Purpose:

Methods: To estimate the prevalence and risk factors of dry eye disease symptoms and clinical diagnoses in Sao Paulo city, state of Sao Paulo, Brazil.

Results: 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.

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.

Keywords: Dry Eye Disease, prevalente, ocular surface, questionnaire

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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.

(GL) GLAUCOMA

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

Poster guidelines:
90cm x 120cm

53. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Cristiana Lumack do Monte Agra - PG1

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Advisor: Tiago Prata

CEP Number: 50710-140

5. ABSTRACT (REQUIRED):

Title: PERIPAPILLARY VASCULAR DENSITY, RETINAL NERVE FIBER LAYER THICKNESS, DISC RIM AREA AND GANGLION CELL COMPLEX THICKNESSES IN CHRONIC CHAGAS DISEASE

Author and Co-authors: Cristiana Agra, Camila V. Ventura, Ana Karine Soares, Dalmir Santos, Marcela Oliveira, Letícia da Fonte, Marília Leal, Tiago S. Prata

Purpose: To investigate peripapillary vascular density (PVD), superior and inferior PVD, disc rim area (DRA), peripapillary retinal nerve fiber layer (PRNFL) thickness, ganglion cell complex (GCC) thickness, as well as PRNFL and GCC superior and inferior thicknesses obtained from optical coherence tomography angiography (OCTA) in patients with chronic Chagas disease (CCD).

Methods: We report the preliminary results of this cross-sectional ongoing study that included patients with CCD and healthy subjects as controls. All participants underwent a complete ophthalmological examination, including retinography (CR2, Canon Inc., New York, USA) and OCTA exams (RTVue XR Avanti, Optovue, Fremont, California, USA). The main outcome measures were average PVD, superior and inferior PVD, DRA, average PRNFL, average GCC and superior and inferior PRNFL and GCC thicknesses. These measures were compared between the 2 groups.

Results: total of 12 patients with CCD (mean age: 61.0 years, range, 46-86 years) and 12 healthy controls (mean age: 59.6, range, 49-75 years) were included until now. Out of the CCD group, 6 patients had cardiac Chagas disease form without ventricular dysfunction, 4 had ventricular failure, and 2 had the indeterminate form. No significant difference was observed between CCD group and health individuals regarding average PVD ($p=0.505$), superior and inferior PVD ($p=0.220$ and $p=0.141$, respectively), DRA ($p=0.060$), average PRNFL ($p=0.602$), average GCC ($p=0.916$) thicknesses, superior and inferior PRNFL ($p=0.414$ and $p=0.801$, respectively) and superior and inferior GCC ($p=0.927$ and $p=0.855$, respectively) thicknesses results.

Conclusion: These preliminary results suggest that, despite having a significant cardiovascular dysfunction, patients with CCD may have similar structural and vascular peripapillary parameters when compared to healthy individuals. As this is an ongoing study, a larger sample is warranted to confirm these initial results.

Keywords: Chagas disease; Optic nerve; Glaucoma; Optical coherence tomography angiography.

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Poster guidelines:
90cm x 120cm

54. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Gustavo Coelho Caiado - PG1
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Advisor: Augusto Paranhos

CEP Number: 74290110

5. ABSTRACT (REQUIRED):

Title: High density perimetry and foveal avascular zone in glaucoma

Author and Co-authors: GUSTAVO COELHO CAIADO, GUSTAVO ALBRECHT SAMICO, GILVAN VILARINHO SILVA FILHO, SERGIO HENRIQUE TEIXEIRA, CAROLINA PELEGRINI BARBOSA GRACITELLI, TIAGO DOS SANTOS PRATA, AUGUSTO PARANHOS JR

Purpose: evaluate the structure and function association between macular high density perimetry (Octopus Macular program) and foveal avascular zone (FAZ), macular vascular density (VD) and ganglion cells layer (GCL) in glaucoma patients

Methods: 93 eyes (47 patients) were included in this study. Perimetry was performed using Octopus 900 Macular program that includes high-density stimuli: 45 points one degree spacing in the fovea (central 4 degrees) and 36 points radially oriented from 4 to 10 degrees. FAZ, VD and GCL were evaluated using Triton angio-OCT. Vascular parameters were: FAZ area, perimeter and circularity as also macular VD (divided in superior, inferior, nasal, temporal e central). VF variables were MD, MS, sLV and GCL evaluation included total, superior and inferior means. Vascular parameters were considered dependent variables and GCL independent for structure/structure analysis. For structure/function analysis VF parameters were the dependent variables and vascular parameters, independent. GEE was used for the analysis as both eyes entered in all models and uni and multivariable analysis were performed. FAZ parameters were automatically calculated using ImageJ software

Results: 25 women and 22 men were included, the mean age was 66,67 (+/- 7,36). Mean of MS was 23,25 (+/-5.53) and mean central GCL was 57,07 microns (+/-7.24). Regarding the VF variables, MD and MS were significant associated with FAZ area, circularity, and perimeter as also superior and inferior macular VD ($P' < 0.05$), sLV was not associated with any parameter vascular parameter. For structure/structure analysis, significant associations were found between FAZ area and superior GCL ($P' < 0.05$). FAZ perimeter, FAZ Circularity and superior VD were significantly associated with all GCL parameters ($P' < 0.05$). When multivariable analysis was performed for VF parameters (MS and MD), only perimetry and temporal vascular density was significant associated ($P' < 0.05$)

Conclusion: When using high density perimetry, many VF parameters were associated with FAZ alterations in glaucoma patient. This region of interest approach could be used in clinical practice for structure and function evaluation considering vascular abnormalities in glaucoma

Keywords: Foveal Avascular Zone; Glaucoma; High density perimetry

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55. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Tiago Prata

CEP Number: 1083/2017

5. ABSTRACT (REQUIRED):

Title: COMPARISON OF EPIDEMIOLOGICAL AND LONGITUDINAL OCULAR METRICS BETWEEN GLAUCOMATOUS PATIENTS TREATED IN THE PUBLIC AND PRIVATE HEALTH CARE SYSTEMS

Author and Co-authors: Vianello MP, Kanadani FN, Paranhos Jr A, Graciteli CB, Prata TS.

Purpose: To investigate and compare epidemiological and longitudinal ocular metrics between glaucomatous patients treated in the public and private health care systems from southeast Brazilian cities.

Methods: An observational cross-sectional study was carried-out. Glaucomatous patients were consecutively enrolled from five Ophthalmological Centers (2 private and 3 public services), located in four different cities from southeast Brazil. After inclusion, the following epidemiological and longitudinal ocular data were collected: age, gender, years of follow-up, number of visits, number of visual fields (VF) and retinographies, visual acuity, intraocular pressure (IOP), cup-to-disc ratio (CDR) and VF mean deviation index (VFMD). Main outcome measures were the comparisons of these several metrics between patients from the public and private services. The main secondary outcome was the investigation of factors associated with visual disability among study participants.

Results: A total of 95 patients (190 eyes) from public institutions and 98 patients (196 eyes) from private services were included. Herein we present the preliminary descriptive analyses of the study data. Mean age was 70 and 68 years, 52% and 55% where female, follow-up period was 4 and 4.8 years, initial visual acuity (logMar) was 0.48 and 0.67, and mean baseline IOP was 18.5 and 17.4 mmHg, for patients from public and private services, respectively. While patients from the public health system had worse initial VF damage (VFMD: -14.2 vs -6.5 dB) and greater CDR (0.82 vs 0.72), patients from private services had a greater number of visits (3.5 vs 2.8), retinographies (1.1 vs 0.6) and VFs (1.8 vs 1.1) per year.

Conclusion: These preliminary analyses suggest that although glaucomatous patients from the public health system have more advanced disease, they are not followed as close as patients treated in private services. Further analyses will determine factors possibly associated with visual disability among study participants, which will provide important information for better resource allocation in the public health system.

Keywords: glaucoma; public health; follow-up; progression; Brazil

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Methods
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56. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Priscilla Fernandes Nogueira - PG1

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Advisor: Augusto Paranhos

CEP Number: 1023/2020

5. ABSTRACT (REQUIRED):

Title: Randomized Clinical Trial: Effects of Melatonin Replacement on Sleep Quality of Patients with Advanced Glaucoma

Author and Co-authors: Priscilla Fernandes Nogueira, Monica Levy Andersen, Carolina Pelegrini Barbosa Gracitelli, Augusto Paranhos Jr.

Purpose: Glaucoma is considered a degenerative and progressive disease that courses with structural changes in the optic disc and retinal nerve fiber layer (RNFL). Due to the loss of ganglion cells caused by glaucoma in advanced stages of the disease, the reduction of these cells can decrease the transmission of light information from the optic nerve, changing the functions of the suprachiasmatic nucleus (NSQ) and interfering with the circadian rhythm. Studies with actigraphy, were able to determine, through movement sensors and algorithms, the periods of sleep and wakefulness and circadian rhythms. This makes it possible to correlate patients with glaucoma and dysregulation of the circadian cycle. 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.

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. 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 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.

Results: For this present study, 54 patients were recruited in which the initial exams have already been performed.

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, decreasing melatonin secretion, thus leading to sleep disorders. A randomized clinical trial could clarify doubts regarding the sleep aspect of these patients.

Keywords: Glaucoma, Melatonin, Sleep Disorders, Circadian Rhythm

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Methods
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57. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Giovanna Yurie Wada - PIBIC

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Advisor: Carolina Pelegrini

CEP Number: 4022001

5. ABSTRACT (REQUIRED):

Title: CORRELATION BETWEEN COGNITIVE LEVEL AND RISK OF FALLS WITH GLAUCOMATOUS DEFECT TOPOGRAPHY IN THE VISUAL FIELD

Author and Co-authors: Wada, GY, Bando, AH, Prata, TS, Teixeira, SH S, Ferrari, PV, Herrerias, BT, Machado, LF, Hirai, FE, Paranhos, AJr, Gracitelli, CPB

Purpose: This study aims to assess whether there is a relationship between cognitive impairment and risk of falls with the visual field variability observed in glaucoma patients

Methods: In this cross-sectional study, one hundred and eight patients diagnosed with glaucoma were recruited from the Department of Ophthalmology and Visual Sciences at UNIFESP/EPM. All patients underwent a complete ophthalmologic examination and on the same day had reliable standard automated perimetry. All patients had been previously diagnosed with glaucoma for more than 2 years and were familiar with the examination. In addition at the same visit, patients answered the cognitive questionnaire (MOCA assessment) translated and validated into Portuguese, as well as the risk of falls questionnaire and Mini Mental State Examination (MMSE).

Results: The mean age of the patients was 61.47 ± 16.77 years and 51% were female. The mean values of MOCA was 17.80 ± 5.61 (reference value >22 points) and of MMSE was 25.01 ± 3.86 (reference value >24 points). The mean value of the Risk of Falls Questionnaire was 35.09 ± 10.56 (reference value >23 points). Worsening cognitive level was significantly associated with patients who had peripheral defects ($p=0.041$). Risk of falls was also more associated with peripheral defects ($p=0.040$) than compared with central defects measured by visual field examination.

Conclusion: Correlation exists between the patient's cognitive impairment and the pattern of visual field loss. Furthermore, patients who have peripheral damage have a higher risk of falling compared to those with a central defect. There was no financial support.

Keywords: glaucoma, cognition, risk of falling, visual field

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58. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Anelise Savaris Dias - PG0

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Advisor: Miguel Burnier

CEP Number: 88.330-155

5. ABSTRACT (REQUIRED):

Title: Extensive Macular Atrophy with Pseudodrusen-like Appearance (EMAP): Case series and review

Author and Co-authors: Anelise Savaris Dias Adriana Fornazier Freitas Muralha Ana Paula Couto Moreira Beatriz de Lucena Ribeiro e Silva Marques Giovanna Provenzano Sá Gabriela Jogaib de Onofre Raul Nunes Galvarro Vianna

Purpose: To describe the clinical features of two patients affected by a rare entity called Extensive Macular Atrophy with Pseudodrusen-like appearance (EMAP).

Methods: Two patients with diagnosis of EMAP underwent a detailed anamnesis and multimodal imaging, including color retinography, fundus autofluorescence, optical coherence tomography (OCT), OCT-angiography scans, electroretinogram and computerized campimetry between January and September 2022, at a retina service in Rio de Janeiro.

Results: The mean age at symptom onset was 53.5 years and all of them presented with dark adaptation complaints. Retinography showed macular atrophy with larger vertical axis surrounded by pseudodrusen-like deposits involving the midperiphery, sparing the foveolar area bilaterally, and in one eye, extending up to the far temporal periphery. In autofluorescence, we visualized well-delineated atrophy with hyperautofluorescent borders. Swept-Source optical coherence tomography (OCT-SS) showed extensive loss of the outer retinal layers with a prominent barcode effect and thinned choroid, surrounded by deposits above the retinal pigment epithelium with a diffuse pattern. Both patients had central absolute scotoma and full-field electroretinogram (ERG) impairment and no choroidal neovascularization (CNV).

Conclusion: EMAP causes remains unknown. This complex condition is known to share phenotypic patterns with geographic AMD, however it differs from AMD in causing more progressive and faster macular atrophy. Therefore, further studies are needed to identify the early biomarker of the disease and understand its pathophysiology, so that future treatments of this vision-threatening condition can be possible.

Keywords: EMAP, AMD, multimodal imaging.

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Keywords

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59. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Rubens Belfort

CEP Number: 19386619.1.0000.8247

5. ABSTRACT (REQUIRED):

Title: Analysis of the variation in macular thickness and choroidal thickness with Swept Source OCT in patients with exudative age-related macular degeneration undergoing intravitreal injections of aflibercept

Author and Co-authors: Daniel Prado Beraldo, Thiago Cabral, Marcussi Palata Rezende, Rodrigo Antônio Brant Fernandes, João Gabriel Alexander

Purpose: To determine and correlate the variation of central and choroidal macular thickness in patients with exudative age-related macular degeneration (AMD) using Optical Coherence Tomography Swept Source (OCT-SS) in patients undergoing intravitreal injection of aflibercept in a period of three months and evaluate the patients regarding sex, age, time of disease, change in intraocular pressure and verify the change in corrected visual acuity.

Methods: A prospective observational study of a series of cases evaluated in analysis of medical records and performances of OCT Swept Source was carried out. The sample consisted of 15 treatment-naïve patients diagnosed with monocular exudative AMD.

Results: The correlation between (pre x post) choroidal reduction with (pre x post) macular reduction was weak and positive (Pearson correlation = 0.337), without statistical significance (p-value 0.165). The correlation between pre-macular thickness and post-choroidal thickness was moderate and negative (Pearson's correlation value = -0.533), being statistically significant (p = 0.041). The correlation between pre-macular thickness and the variation in choroidal thickness was moderate and positive (Pearson's correlation value = 0.581), being statistically significant (p = 0.023). It is observed that patients with greater macular thickness prior to treatment would be more likely to have reduced choroidal thickness in general. Such comparisons, not previously seen in the literature, could complement OCT analysis on treatment response.

Conclusion: After treatment with intravitreal injections of aflibercept, patients showed significantly better visual outcomes. Subfoveal choroidal thickness was significantly correlated with visual outcome and there was a positive response to treatment after intravitreal injection of aflibercept in patients with neovascular AMD. In addition, macular thickness was significantly reduced in the statistical analysis when compared to baseline. Correlations were also obtained between macular and choroidal thickness, possibly suggesting a new objective parameter to be evaluated in the analysis of response to treatment with intravitreal injections of anti-VEGF in patients with neovascular AMD.

Keywords: Exudative Age-related Macular Degeneration. Aflibercept. Macular thickness. Choroidal thickness. Swept Source OCT.

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60. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Helen Veloso Santos - PGO

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Advisor: Caio Regatieri

CEP Number: 3,38422207e+016

5. ABSTRACT (REQUIRED):

Title: Detection of diabetic macular edema from optical coherence tomography (OCT) using deep learning

Author and Co-authors: Helen Nazareth Veloso dos Santos, Luis Filipe Nakayama, Fernando Korn Malerbi, Caio Vinicius Saito Regatieri

Purpose: Developing a deep learning algorithm using optical OCT data to identify diabetic macular edema automatically and faster.

Methods: Retrospective analysis on 3 dataset of OCT macular scans of patients with diabetes type 1 or 2. The dataset will be collected from the Retina Department of São Paulo Hospital / Federal University of São Paulo (São Paulo, SP, Brazil), UPO (Paulista Unit of Ophthalmology, São Paulo, SP, Brazil) and RetinaPro (Ophthalmology clinic, Belém, PA, Brazil) from January 2018 to January 2023. A total of at least 3000 images are estimated. First, the OCT scans and OCT data - color map and thickness map - for each patient will be completely anonymized. Images with low quality will be excluded. In order to detect the presence of macular thickening (MT), the images will be separated into 2 groups: central subfield thickness up to 275um (subjects with normal MT) and more than 400um. The automated extraction of textual data from the reports will be done after masking the image with the OpenCV library, followed by the Tesseract library. The same computer vision library will be used to recognize the dimensions of the color map that represents the retinal thickness. The dataset will be used as follows: 60% for training, 20% for testing and 20% for validation. The area under the receiver operator characteristic curve (AUC) will be used to assess the performance of the deep learning algorithm. The 95% confidence intervals (Cis) is another parameter to be considered for the analysis of the algorithm's performance.

Results: In progress.

Conclusion: In progress.

Keywords: Deep learning; diabetic macular edema; assisted-diagnosis; clinical triage

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

Name: Julia de Lima Farah - PGO

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Advisor: Eduardo Rodrigues

CEP Number: 4619002

5. ABSTRACT (REQUIRED):

Title: Splint Study: PNEUMATIC RETINOPEXY BEFORE VITRECTOMY FOR MACULA OFF RETINAL DETACHMENT

Author and Co-authors: JULIA FARAH, EDUARDO B. RODRIGUES, RAJAN NIRWAN, NATALIA FIGUEIREDO, GEOFF WILLIAMS, AMIN KHERANI

Purpose: To investigate if pre-operative intravitreal gas injection (pneumatic retinopexy- Pn) and face down positioning would favor reattachment and facilitate surgical technique.

Methods: Study design: Prospective randomized trial between 2019 and 2022. Inclusion criteria: patients over 18 years old with macula off retinal detachment with 10 days or less of central vision loss. After being enrolled in the study, vitrectomy was scheduled as per standard of care. Patients were randomized in 2 groups: group I adjuvant pneumatic (intravitreal gas injection) prior to vitrectomy and face down positioning and group II standard of care head posturing prior to vitrectomy. Surgeons answered a questionnaire 1) if gas bubble made the surgery easier, harder or no different 2) if gas bubble turned the macula off RD into a macula on RD 3) if perfluorcarbon liquid for endodrainage was used 4) if any complication was encountered. Functional outcomes will be measured at 3, 6 and 12 months post-operatively with best corrected visual acuity and assessment of metamorphopsia.

Results: 330 patients were enrolled in the study 15 patients in group I and 15 patients in group II. From 15 patients included in group I, 11 had easier surgical technique due to the pre-operative gas injection, 12 had macula on retinal detachment at the time of the surgery, and 7 did not need to use perfluorcarbon liquid for endodrainage (compared to 2 participants from group II that did not need perfluorcarbon liquid). No complications were encountered with pre operative Pn. Adjuvant Pn before vitrectomy facilitates surgical technique and can alter vitrectomy technique into a non-drainage vitrectomy. That can be explained by partial or complete resolution of the subretinal fluid at the time of the surgery, less bullous detachment, attached macula and therefore less mobile retina.

Conclusion: This study shows that pre-operative Pn is safe, facilitates surgical technique, optimizes retinal reattachment and reduces the need of perfluorcarbon liquid, consequently reducing the cost of vitrectomy. Future perspectives are to compare functional outcomes between the groups with a greater number of patients.

Keywords: Pneumatic retinopexy, rhegmatogenous retinal detachment, pars plana vitrectomy

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62. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Luiz Filipe Adami Lucatto - PG1

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Advisor: Eduardo Rodrigues

CEP Number: 5.383.484

5. ABSTRACT (REQUIRED):

Title: TELEMENTORING VERSUS FACE-TO-FACE MENTORING IN TRAINING FOR INTRAOCULAR LENS SCLERAL FIXATION SURGERIES

Author and Co-authors: Luiz Filipe Adami Lucatto, Juliana Moura Bastos Prazeres, Emmerson Badaró, Gabriel Castilho, Luiz Lima, Eduardo Büchele Rodrigues

Purpose: Telementoring can be an important tool in ophthalmic surgery training since geographic barriers and access to skilled mentors decrease with this technology. Four-point scleral fixation surgery using a 4-haptic intraocular lens (IOL) and polytetrafluoroethylene sutures is a scleral fixation technique used by anterior segment and retina and vitreous surgeons. This study was designed to assess the effectiveness of telementoring compared to face-to-face mentoring in teaching this technique, using a surgical model.

Methods: In this study, ophthalmology residents, retina and anterior segment fellows and surgeons, with no previous experience with the technique, will be trained in a 4-haptic IOL scleral fixation technique (Akreos® - Baush Lomb) using polytetrafluoroethylene sutures (GoreTex® CV-8), in a surgical model suitable for training intraocular lens fixation (SimulEye®). Participants will be randomized in order of enrollment into the study to either face-to-face mentoring or telementoring, with a 1:1 ratio. Both groups will have a training module before the procedure explaining the technique. The telementor will interact with the surgeon in training through a videoconference with transmission of images from Ngenuity (Alcon®) to a geographic location far from the operating room. Nine essential surgical steps in the technique will be assessed on a Likert scale of 1-3 by two independent surgeon blindly, using a rubric. The procedure success rate and the global scores (sum of the scores on each surgical step) will be compared between the groups.

Results: So far, 116 participants have been included in the study, 59 of which were randomized to face-to-face mentoring and 57 to Telementoring. The procedure success rate was 98.30% in the face-to-face mentoring group and 98.24% in the telementoring group. Only 1 participant in each group failed the procedure due to haptic damage to the intraocular lens. Minimal technical failures were reported in 8 procedures, without affecting the mentoring result and the end of the procedure. Results comparing the Global Score between groups are still in progress.

Conclusion: Telementoring has similar results on procedure success rates comparing with face-to-face mentoring in IOL scleral fixation training. It can be an effective way to help surgeons introduce new technical knowledge for vitreoretinal surgeries.

Keywords: Telementoring, Scleral fixation of intraocular lenses, Surgical training

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63. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Marcussi Palata Rezende - PGO

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Advisor: Rubens Belfort

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 Prof. Dr. Thiago Cabral Prof. Dr. 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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64. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Juliana Moura Bastos Prazeres - PG0

e-mail: juprazeres@hotmail.com

Advisor: Mauricio Maia

CEP Number: 1529

5. ABSTRACT (REQUIRED):

Title: Retinal and choroidal thickness in pediatric patients with sickle cell disease: a cross-sectional cohort study

Author and Co-authors: Juliana Prazeres , Luiz Filipe Lucatto , Adriano Ferreira , Nilva Moraes , Josefina A P Braga Luiz H Lima , Caio Regatieri , Maurício Maia

Purpose: To measure the retinal/choroidal thicknesses in the macular area of asymptomatic pediatric patients with sickle cell disease (SCD).

Methods: All study patients underwent VA measurement using the Snellen chart, slit-lamp biomicroscopy, indirect ophthalmoscopy after pupil dilatation, and fundus photograph (Visucam, Carl Zeiss Meditec, Jena, Germany). The SD-OCT retinal and choroidal images were obtained using the Heidelberg Spectralis (version 1.5.12.0, Heidelberg Engineering, Heidelberg, Germany). Each OCT section was comprised of 100 averaged scans acquired using eye tracking that were taken in a 5°x30-degree rectangle including the optic nerve and macula. The choroid was imaged with the Heidelberg Spectralis using enhanced-depth imaging (EDI). All OCT scans were obtained between 9:00 and 11:00 am. The retinal measurements were performed according to the thickness map with nine Early Treatment Diabetic Retinopathy Study (ETDRS)-like subfields displayed. The horizontal and vertical enhanced-depth imaging EDI-OCT crosshair scans centered on the fovea were analyzed. Choroidal imaging was performed as a single line scan, 7.2 mm long, passing directly through the foveal center, using the EDI protocol in the Heidelberg machine. The choroidal thickness was measured perpendicularly from the outer edge of the retinal pigment epithelium to the choriocleral boundary at five points (subfoveal, nasal perifoveal, nasal parafovea, temporal perifovea, temporal parafovea) Generalized Estimating Equations (GEE) were applied to compare the outcomes between groups. $P < 0.05$ was considered significant.

Results: Among the 40 patients with SCD, retinal findings were observed in 26 eyes (32.9%), i.e., retinal tortuosity in 20 eyes (25.3%), retinal arteriolar narrowing in five eyes (6.3%) and a black sunburst in one eye (1.27%)The choroidal thickness in the macular area in the study subfields was significantly thinner in the SCD eyes compared with control eyes (subfoveal subfield and temporal parafoveal subfield, $p < 0.0001$, nasal parafoveal subfield, $p < 0.0001$ temporal perifoveal subfield, $p < 0.0001$, and nasal perifoveal subfield, $p < 0.0001$). The variations in the retinal thickness were not significant.

Conclusion: EDI-OCT showed that the macular choroidal thickness is thinner in asymptomatic pediatric patients with SCD.

Keywords: Choroidal thickness; Retinal thickness; Sickle cell disease.

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65. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Amanda Thum Welter - R1

e-mail: amandatwelter@gmail.com

Advisor:

CEP Number: 4038900

5. ABSTRACT (REQUIRED):

Title: Pupillary block in ectopia lentis et pupillae (ELeP): a case report

Author and Co-authors: Amanda Thum Welter, Luciana Arrais e Lucas Ribeiro Zago

Purpose: To report a rare case of a patient who presents ectopia lentis et pupillae, the diagnostic procedures applied and the management of this condition.

Methods: A 45-year-old male presented with acute pain and vision loss in the right eye for the last day. Denied past family history, consanguinity, or clinical comorbidities. Reported bilateral low vision and ?iris malformation? since childhood, performing anterior segment surgery in the left eye as a child. Unfortunately, he missed more data about his past ocular history, and lost ophthalmological follow-up since then. On admission ophthalmic examination, presented BCVA of hand-motion in the right eye (OD) and counting fingers in the left eye (OS), and elevated intraocular pressure (IOP) of 35 mmHg in the OD, measured by Goldmann tonometer. Anterior segment examination showed shallow anterior chamber, discoria and corectopia in the OD, and a nasal iridectomy, superior iris atrophy and aphakia in the OS. No specific phenotype was noticed during consultation. For the work-up of this case, we ordered ultrasound and an ultrasound biomicroscopy of the right eye and systemic exams.

Results: The ultrasound of the right eye showed the presence of subluxated lens in anterior vitreous, and the biomicroscopy demonstrated a closed angle of 360°, pupil present in the periphery iris between the 11 and 1 o'clock meridians, and forward rotation of the ciliary body. The anterior segultrasound ment OCT demonstrated vitreous block of the small and dislocated pupil. The main hypothesis of acute pupillary block was raised, and opted for surgical approach with pupiloplasty, lensectomy, and pars plana vitrectomy in the OD. After surgery, the patient reported improvement of the visual acuity and pain in the right eye. Presented BCVA of 20/400 in the right eye (OD) and counting fingers in the left eye (OS), and the intraocular pressure (IOP) of 16 mmHg in the OD.

Conclusion: Ectopia lentis et pupillae is a rare congenital disorder of autosomal recessive pattern, characterized by lenticular and pupillary ectopia. The correct diagnosis of ectopia lentis et pupillae is important for risk assessment, prognosis and treatment. Besides being fundamental his knowledge to perform differential diagnosis with other syndromes where there is systemic involvement.

Keywords: Pupillary block, Ectopia lentis et pupillae

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66. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Iago Diógenes Azevedo Costa - R1

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Advisor:

CEP Number: 4039032

5. ABSTRACT (REQUIRED):

Title: Racemose hemangioma (Wyburn-Mason syndrome): a case report.

Author and Co-authors: Iago Diogenes Azevedo Costa, Jose Rodolfo Mariani Radaeli, Luciana Arrais.

Purpose: To report a rare case of a patient who presents retinal racemose hemangioma (Wyburn-Mason syndrome), the diagnostic procedures applied and the management of this condition.

Methods: A 17 year-old female patient presented to our service with a complaint of low visual acuity in the left eye since childhood, associated with a left pulsatile hemicranial headache. She had a past medical history of autoimmune hepatitis and her past family and ocular history were unremarkable. At presentation, the best corrected visual acuity (BCVA) was 20/20 in the right eye and hand-motion in the left eye, and she presented sensory exotropia. The fundus examination of the right eye was unremarkable and, in the left eye, there was an arterio-venous malformation (AVM) covering the optic disc and posterior pole, as well as an increased vascular tortuosity and an attached retina. For the work-up of this case, we ordered retinography of both eyes, optical coherence tomography, fluorescein angiography, magnetic resonance imaging of the head and orbits and angiography.

Results: The fluorescein angiography shows an arterio-venous malformation over the optic disc and posterior pole with increased vascular width and no leakage, and all the vessels had an increased vascular tortuosity. The magnetic resonance angiography reveals an AVM that extends from the retrobulbar region of the left orbit, involving the optic nerve and following its course through the orbital apex to the intracranial compartment at the level of the left parasagittal polygon, which still involves the optic chiasm and displaces the pituitary stalk. In this case, regarding de ocular involvement, the retina team had a conservative management, and the patient was referred to the neurology team due to the association with symptomatic hemangiomas lesions of the central nervous system.

Conclusion: Wyburn-Mason syndrome is a rare, congenital, non hereditary, unilateral, oculocephalic disease in the phakomatoses group, in which we observe an 80% rate of ocular involvement. The ophthalmologist has an important role in the diagnosis, investigation, management and referring of those patients.

Keywords: Arteriovenous malformations; racemose hemangioma; Wyburn-Mason syndrome.

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67. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: João Gabriel Alexander - R1
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Advisor:

CEP Number: 04038-032

5. ABSTRACT (REQUIRED):

Title: MULTIMODAL IMAGING OF DIDANOSINE-RELATED RETINOPATHY

Author and Co-authors: João Gabriel Alexander Gustavo Albrecht Samico Lucas Zago Ribeiro Huber Martins Vasconcelos Júnior

Purpose: To describe multimodal imaging findings in a rare case of didanosine-related retinopathy.

Methods: A case report of a 55-year-old male patient presenting peripheral visual loss, and nyctalopia for the last 8 years in both eyes. Previous medical history of HIV, and use of didanosine for almost 10 years. Multimodal imaging and genetic testing were performed to clarify, describe and help with accurate diagnosis of the case.

Results: The patient presented visual acuity of 20/25 in both eyes. Fundus examination showed bilateral symmetrical peripheral chorioretinal degeneration, sparing a well circumscribed area in posterior pole. Ultra-wide field fundus autofluorescence revealed hypo-autofluorescence extending from arcades to extreme periphery, sparing the posterior pole. Spectral-domain optical coherence tomography was normal in the preserved areas of the macula, but highlighted loss of outer layers in areas corresponding to the chorioretinal atrophy seen in funduscopy, with outer retinal tubulation in the region of transition between collapsed and healthy retina. Goldmann perimetry demonstrated a constricted small island of central visual field preserved. Full-field electroretinography showed an extinguished response of rods and a significant loss of cones photoreceptors in both eyes. Oral saliva genetic testing was performed in order to exclude inherited retiniopathies and the panel was negative.

Conclusion: The didanosine-related chorioretinal toxicity is a rare disease, with few reports in the literature. Multimodal imaging, and genetic testing were essential for precise diagnosis. The limitation of this report includes its late presentation of the patient to our clinic, making difficult to determine early signs of the toxicity, precise length of didanosine treatment and whether the degeneration progressed short after cessation of the medication.

Keywords: Didanosine; Toxicity; Multimodal; Antiretroviral; Retinopathy.

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(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

68. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Maurício Pessôa Lima Filho - R1

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Advisor:

CEP Number: 04044-060

5. ABSTRACT (REQUIRED):

Title: Syphilis presenting as Pseudo-Foster-Kennedy Syndrome

Author and Co-authors: Lima Filho, M. P. , Marin, V. D. G. B. , Noia, L. DC.

Purpose: The aim is to bring attention to local disease epidemiology and potential differential diagnoses of a given disease, while illustrating the step-by-step process taken to achieve the precise resolution of a rich case.

Methods: Medical history and eye examination were performed on the patient when he first arrived at the clinic, including: anterior biomicroscopy, intra-ocular pressure, pupillary light reflex assessment and eye fundoscopy. Fluorescein Angiography and Retinography documentation were also performed at the day of arrival. Ancillary serologies and blood tests, were ordered for further investigation. The patient was followed during treatment in our E.R. department, and a post-treatment eye examination and retinography were performed for comparative purposes.

Results: Best-corrected visual acuity was counting fingers at 1m in right eye and 20/400 in left eye. Fundoscopy of the right eye revealed optic disk pallor, ghost vessels in the inferior temporal arcade, generalized vascular thinning, as well as a yellow lesions with ill-defined borders at the macular region. Fundoscopy of the left eye revealed optic disk hyperemia with blurred margins, venous dilation, generalized vascular tortuosity and macular pallor. Optical Coherence Tomography (OCT) revealed macular edema in both eyes, with the left eye presenting a larger amount when compared with the right eye. Fluorescein Angiography of the right eye demonstrated a filling delay in the lower vascular arch, leak hyperfluorescence at the onset of Inferior Temporal Arcade and peripheral hypofluorescence due to poor perfusion. The exam of the left eye showed an early diffuse hyperfluorescence in the macular region (window defect) and a late optic nerve hyperfluorescence. Blood tests were within normal limits, except for a slightly elevated PCR of 9,91 (normal below 1,00). HIV serology was non-reactive. Skin tuberculin test result was of 0mm. Finally, Syphilis treponemic test was positive. VDRL test also came positive with a 1:256 titration, sealing the final diagnosis.

Conclusion: Since optic nerve atrophy was observed in one eye, and edema together with hyperemia was seen in the other eye's optic nerve head, Foster-Kennedy syndrome was a strong diagnostic hypothesis to be considered. Previous arterial/venous occlusion, vasculitis, NAION and infectious causes (Syphilis, Tuberculosis, HIV) were also meaningful candidates for the patients presenting signs and symptoms. Since infectious diseases are highly prevalent in Brazil, this diagnostic hypothesis quickly rose to attention, and serology testing was the diagnostic-defining measure. Thus, it was considered that the patient had a Pseudo-Foster-Kennedy syndrome, with Syphilis being the culprit. It was described an unusual form of ocular syphilis manifestation, demonstrating that a full diagnostic work-up, with all the readily available tests and instruments, is of paramount importance when confronted with an otherwise challenging case with life-threatening differential diagnoses.

Keywords: Retina; Syphilis ; Foster-Kennedy; Pseudo-Foster-Kennedy ; Syndrome

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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.

(RE) RETINA AND VITREOUS

69. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Multimodal Evaluation of macula off rhegmatogenous retinal detachment successfully treated with scleral buckle

Author and Co-authors: Vinicius Oliveira Pesquero MD, Dante Akira MD, Lucas Zago Ribeiro MD, Luciana Arrais MD, Zaira Fernanda Nicolau Martinho MD, Lucas Denadai MD, Caio Vinicius Saito Regatieri MD PhD

Purpose: This study aims to evaluate functional and anatomical outcomes of macula-off rhegmatogenous retinal detachment (RRD) repaired with Scleral Buckle (SB). The study is still in progress and new data will be included.

Methods: Prospective case series. We included patients aged 18 years old or older with the diagnosis of macula-off RRD successfully repaired with SB at Federal University of São Paulo. Patients with other ocular diseases were excluded. Presented characteristics including visual acuity before, 3 and 6 months after the surgery, macular status, type of retinal tear, surgical technique used, presence of proliferative vitreoretinopathy (PVR) were then recorded in an Excel table of statistical analysis. Evaluation at 3 and 6 month after surgery included best-corrected visual acuity (BCVA), SD-OCT, OCT-A.

Results: In the baseline, this study consisted of 8 patients with macula off RRD successfully repaired with SB, which were evaluated after 3 months and 5 of them were evaluated after 6 months Foveal detachment was present in 7 (87,5%) cases temporal localization of the RRD was the most common. Round hole was the most common retinal break. All patients evaluated were phakic. At 3 months of follow-up, 6 (75%) patients presented a visual acuity equal or better than 20/80 and mean central retinal thickness was 238 ?m. Subretinal fluid was present in 3 (37,5%) patients. Ellipsoid and external limiting membrane disruption were present in 6 (62,5%) and 3 (37,5%) cases, respectively. The mean FAZ area measured with OCT-A was 0,263mm² At 6 months of follow-up, 3 (60%) patients presented a visual acuity equal or better then 20/80 and mean central retinal thickness was 242 ?m. Ellipsoid disruption were present in 2 (40%) patients. The mean FAZ area measured was 0,277mm². This is an ongoing study and data is still being included

Conclusion: Ellipsoid disruption, subretinal fluid and larger FAZ were associated with poor visual outcomes at 3 and 6 month follow-up. The current study was limited by small sample size, however, the results of 1 year follow-up and new data will be included in this study. No Financial Support.

Keywords: Retinal Detachment; Scleral Buckling; Retina

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(RE) RETINA AND VITREOUS

70. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 04039-031

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Results
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Study of simulated vitreoretinal performance following multimodal pharmacological, and behavioral exposures, among surgeons with varying levels of surgical experience.

Author and Co-authors: Marina Roizenblatt, MD, PhD, Kim Jiramongkolchai, MD, Vitor D. Marin, MD, Rubens Belfort Jr, MD, PhD, Michel Farah, MD, PhD, Peter Gehlbach, MD, PhD, Mauricio Maia, MD, PhD.

Purpose: To assess whether changes in simulated microsurgical dexterity present with weight-adjusted caffeine and propranolol doses, upper-limb physical exercise, and alcohol intake differ with surgeon level of experience.

Methods: Nine novice and 11 senior surgeons (<2 years and >10 practice years, respectively) were prospectively and randomly recruited. A fixed sequence of Eyesi-simulator tasks was repeated over 4 days after the following self-controlled exposures. Day 1: placebo, 2.5 mg/kg caffeine, and 5.0 mg/kg caffeine. Day 2: placebo, 0.2 mg/kg propranolol, and 0.6 mg/kg propranolol. Day 3: baseline, breathalyzer reading of 0.06%-0.10% and 0.11%-0.15% blood alcohol concentration (BAC). Day 4, baseline, push-up sets with 50% and 85% repetition maximum (RM). The analyzed outcomes were task score (0-700, worst-best), time for task completion (min), intraocular pathway (cm), and tremor rate (0-100, worst-best). The median delta was calculated to quantify the changes in performance and data were statistically analyzed with the Friedman test

Results: Total score performance declined following increased alcohol exposure for novice ($p=0.03$) and senior surgeons ($p<0.001$). Pathway ($p=0.03$) and tremor ($p=0.02$) measurements declined for novices only. Novice surgeons performed worse after 0.11%-0.15% BAC compared to 0.6-mg/kg propranolol for score ($\Delta=-52.3$ vs $\Delta=+23.4$, $p=0.01$) and time ($\Delta=+1.5$ vs $\Delta=-1.7$, $p=0.01$) and had a higher tremor rate when 0.06%-0.10% BAC was compared with 0.6 mg/kg propranolol ($\Delta=-3.2$ vs $\Delta=0.9$, $p=0.05$), and when 0.06%-0.10% BAC was compared with 5.0 mg/kg caffeine ($\Delta=-3.2$ vs $\Delta=+3.5$, $p=0.01$). Seniors had a lower score after 0.11%-0.15% BAC compared to 5.0 mg/kg caffeine ($\Delta=-47.4$ vs $\Delta=+1.0$, $p=0.03$) and 85% RM ($\Delta=-47.4$ vs $\Delta=-1.0$, $p=0.03$).

Conclusion: The novice surgeon's performance was more susceptible to pharmacologic and behavioral exposures as compared to the seniors. Alcohol was the variable that most negatively affected the performance of both groups. The beneficial impact of propranolol on simulated performance was detected only among novice surgeons.

Keywords: alcohol; propranolol; caffeine; exercise; vitreoretinal surgical dexterity

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(RE) RETINA AND VITREOUS

71. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: .

3. THEME: (REQUIRED) Check one:

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Purpose
Methods
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Conclusion
Keywords

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90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Candida tropicalis endophthalmitis - a case report

Author and Co-authors: Franklin Kuraoka Oda

Purpose: Report a case of an endogenous endophthalmitis due to Candida tropicalis

Methods: A 54a woman in treatment for post transplant lymphoproliferative disorder was evaluated due to low visual acuity in her left eye. The patient presented a whitish retinal lesion which rapidly evolved to an intense vitritis. An endogenous endophthalmitis hypothesis was made and a vitreous tap and antibiotics was performed, with a positive result for Candida tropicalis

Results: The patient underwent 2 intravitreal injections of amphotericin B and took oral fluconazole for almost 2 months.

Conclusion: The patient responded positively with the treatment presenting resolution of the vitritis and reduction of the retinal lesion.

Keywords: Endogenous endophthalmitis; Candida tropicalis

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(RE) RETINA AND VITREOUS

72. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Julia Jiquilin Carvalho - Fellow

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CEP Number: 404002

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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: A distinct case in the pachychoroid spectrum

Author and Co-authors: Carvalho, Julia Jiquilin

Purpose: To describe a different manifestation of a central serous chorioretinopathy

Methods: It was collected data from previous consultations and ancillary exams. A consent form was also gathered.

Results: A 47-years-old female patient presented to us with a complain of progressive low vision acuity in both eyes for the last two months. She had a past medical history of fibrimialgia and denied any other medical history or medication in use. The past ophthalmological and family history were unremarkable. The entrance exam showed a visual acuity of 20/40 in the right eye and 20/50 in the left eye. The anterior biomicroscopy and intraocular pressure of both eyes were normal. The fundus exam showed multiple yellowshy subretinal well delimited lesions diffuse in the posterior pole and circumferential to the disk of both eyes. The right eye also showed a localized area of pigment alteration temporal to the fovea. The left eye showed a serous retinal detachment. The fluorescein angiography (FA) showed a consistent hyperfluorescence of theses yellowish lesions through all phases of the exam, the right eye also presented a leaking area temporal to the fovea. The left eye also showed an active leakage in the smostack pattern evolving to a pooling occupying almost the entire macular region. The optic coherence tomography (OCT) showed RPE detachment with fluid and also RPE detachments with hyperelective material that could correspond to drusen in the topography of the yellowish lesions. In the left eye, beside the alterations presented in the right eye, it was also showed the subretinal fluid compatible with the serous detachment.

Conclusion: This case describes a classic finding of central serous chorioretinopathy with the serous detachment in the left eye with a smostake pattern, along with other areas of retinal pigment epithelium detachment in both eyes. But she also presents with these yellowish lesions that could be described as colloid drusen by the aspect presented, but it could also be a manifestation of the pachychoroid spectrum itself.

Keywords: Central serous chorioretinopathy; drusen; pachychoroid

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

Poster guidelines:
90cm x 120cm

73. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Juliana Angélica Estevão de Oliveira - Fellow
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CEP Number: 33842220.7.1001.5505

5. ABSTRACT (REQUIRED):

Title: Validation of non-mydratic and mydratic handheld retinal imaging systems for diabetic retinopathy screening and classification

Author and Co-authors: Juliana Angélica Estevão de Oliveira, Luis Filipe Nakayama, Talita Virginia Fernandes de Oliveira, Lucas Zago Ribeiro, Gustavo Barreto de Melo, Fernando Korn Malerbi, Caio Vinícius Saito Regatieri

Purpose: This study aims to evaluate the quality and reliability of non-mydratic and mydratic handheld retinal imaging systems and compare them with retinal fundus photo cameras in diabetic retinopathy screening and classification.

Methods: This was a multicenter, prospective, cross-sectional study that included a total of 338 patients with type 1 or 2 diabetes mellitus, older than 18 years, without media opacity, contraindication for mydriasis, and ocular surgery in the past 6 months. The participants underwent non-mydratic fundus photography in 2 fields, one centered on the macula, and the other centered on the disc, using a handheld fundus camera. After the first images, participants underwent pupil dilation using 1 drop of 0.5% tropicamide every 5 minutes, for a total of 2 drops. After 20 minutes, patients underwent fundus photography in 2 fields using the same handheld fundus camera and a standard fundus camera. All images were acquired by trained ophthalmologists, with archives names de-identification, and stored in a secure place by the responsible for the study. The participants also answered questions about their clinical features such as: gender, age, race, weight, height, type of diabetes, time of diagnosis, insulin use, smoking habits, and associated diseases. Grading was performed independently by 2 masked ophthalmologists. According to the International Council of Ophthalmology Diabetic Retinopathy (ICDR) classification, DR severity was assessed as no DR, mild nonproliferative DR, moderate nonproliferative DR, severe nonproliferative DR, proliferative DR, or ungradable. Demographic data, DR classification, image quality, time-lapse and the presence of pharmacological mydriasis were compared.

Results: All data has already been collected. The classification of images is being performed.

Conclusion: Still unavailable.

Keywords: Retina, diabetes complications, diabetic retinopathy, telemedicine, artificial intelligence, smartphones

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(RE) RETINA AND VITREOUS

74. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 52733321.5.0000.5505

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5. ABSTRACT (REQUIRED):

Title: Anatomical and Functional Analysis of the Retina in Patients with Ocular Toxoplasmosis Undergoing Posterior Vitrectomy ? Retrospective Study.

Author and Co-authors: Luiz Henrique Soares Gonçalves de Lima, Jorge Henrique Cavalcante Tavares, Guilherme Ferreira Bandeira Coelho Dias, Aluisio Rosa Gameiro Filho, Carlos Eduardo de Souza, Juliana Angélica Estevão de Oliveira, Talita Virginia Fernandes de Oliveira.

Purpose: To analyze the clinical evolution, anatomical and functional prognosis of patients with ocular toxoplasmosis undergoing pars plana vitrectomy surgery.

Methods: It was a retrospective study that included a total of 149 pediatric or adult patients with a presumed diagnosis of ocular toxoplasmosis, who underwent vitreoretinal surgery for the treatment of complications of toxoplasmosis uveitis between January/2001 to December/2019 at the Department of Ophthalmology of the University Federal of Sao Paulo. Were excluded cases in which there was a change in the main diagnostic hypothesis of uveitis to another etiology or who underwent postoperative follow-up of less than 6 months. The following patient characteristics were collected: age, sex, number of lesions and location of retinochoroiditis lesions, severity of vitritis, reason for indicating vitreoretinal surgery, presence of retinal detachment, type of surgery performed and vitreous substitute, visual acuity prior to the procedure, after 6 months and 1 year, anatomic success after surgery and complications.

Results: In the 149 patients evaluated, the final visual acuity was statistically better than the initial acuity. The frequency of retinal detachment in the study patients was 48.99%. Anatomical success was 77.97%, and patients who had 3 or more chorioretinitis lesions had a lower chance of success than patients who had 1 lesion. The incidence of postoperative retinal detachment occurred in 48.33% of patients, and individuals with macula on are less likely to have postoperative retinal detachment than individuals with macula off.

Conclusion: Posterior vitrectomy is a safe procedure that improves VA in patients with ocular toxoplasmosis complications, even if they remain with low vision. Factors related to functional failure were initial VA, presence of retinal detachment, and 3 or more chorioretinitis lesions. .

Keywords: ocular toxoplasmosis, retinal detachment, vitrectomy, chorioretinitis

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Purpose
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Keywords

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75. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Carmen Luz Pessuti - PG1

e-mail: luz.pessuti@unifesp.br

Advisor: Rubens Belfort Jr.

CEP Number:

5. ABSTRACT (REQUIRED):

Title: Protein's profile of purified plasma and aqueous humor extracellular vesicles from patients with ocular toxoplasmosis

Author and Co-authors: Deise F. Costa^{1, 2, *}, Carmen Luz Pessuti², Thupten Tsering¹, Mohamed Abdouh¹, Kleber Ribeiro², Heloisa Nascimento², Alessandra G. Commodaro², Julia Valdamarin Burnier³, Rubens Belfort Jr² and Miguel N. Burnier Jr¹. 1MUHC-McGill University Ocular Patholog

Purpose: We characterized extracellular vesicles proteins isolated from samples of patients with ocular toxoplasmosis.

Methods: Aqueous humor (AH) and plasma were collected from 6 patients with active ocular toxoplasmosis (OT) and 6 cataract patients (CAT). Extracellular vesicles (EVs) were isolated and western blotting and mass spectrometry were performed

Results: All plasma samples from OT and CAT patients were positive for CD63 and TSG101. However, only the AH from OT patients were positive for the CD63. A total of 67 new proteins were found in the AH and plasma from OT and CAT groups. Among these, 10 and 7 proteins were found only in the samples from CAT and OT groups, respectively. The recovered proteins cargo contained factors involved in immune system activation, retina homeostasis, factors related to infections and retina-associated disease.

Conclusion: Proteins-derived EVs from plasma and AH of patients with OT could be useful as biomarkers in the future.

Keywords: Extracellular Vesicles, Proteomics, Toxoplasma gondii, Ocular Toxoplasmosis, Aqueous Humor; Plasma, Liquid Biopsy

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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>76. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Pedro de Faria Gusmão - R1 e-mail: pedrofgusmao@hotmail.com</p> <p>CEP Number: 04037-003</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: Where did this blood come from?</p> <p>Author and Co-authors: Gusmão, Pedro de Faria, MD, Boro, Renata Cavalcanti Portela, MD, PhD.</p> <p>Purpose: To describe a case of Herpes Zoster Ophthalmicus complicated by hyphema in a patient recently diagnosed with HIV.</p> <p>Methods: A 48-year-old patient came to our service with a 10-day history of vesicles on his left forehead, associated with pruritus, pain, swelling and headaches. His medical and ophthalmological history were unremarkable, but he related unprotected intercourses. Physical exam showed vesicular lesions on face, eyelids, and upper lip, on ophthalmic and maxillary divisions of the left trigeminal nerve (V1 and V2). Similar vesicles in his palate, preauricular lymphadenomegaly and a genital nodule were noted. Best corrected visual acuity was 20/20 for the right eye (OD) and 20/40 for the left eye (OS). Anterior biomicroscopy was normal for OD, but OS had swollen eyelids with crustose ulcerations, hyperemic conjunctiva, corneal pseudodendrites and no anterior chamber reaction. The intraocular pressure (IOP), funduscopy, ocular motricity and pupil reflexes were normal for both eyes (OU).</p> <p>Results: Serologies were positive for HIV and negative for other STIs. His CD4 count was 274 cells/mm³. Computed Tomography suggested post-septal cellulitis. The patient was hospitalized for antiretroviral therapy and intravenous Ganciclovir. At day ten, he claimed acute and painless visual acuity decrease in OS to light perception and presented corneal edema and a 3 mm hyphema with hematic cells impregnated in the endothelium. Fundoscopy was impossible and ocular ultrasonography showed hemorrhagic/inflammatory vitreous process and attached retina. IOP was 40mmHg on the OS. At this time, topic timolol and brimonidine and oral acetazolamide were introduced. Nevertheless, no improvement in OS IOP was seen. Anterior chamber washout surgery was done two days after hyphema onset and his OS IOP stabilized at normal levels, with no new episodes of hyphema. His visual acuity maintained at hand motion on OS.</p> <p>Conclusion: Ophthalmic Herpes Zoster is uncommon in younger patients. However, immunocompromise caused by HIV infection elevates the risk almost 17 times (in males). Hyphema is a rare associated condition but, when present, IOP measurement should be frequent due to the association with hemorrhagic glaucoma, an eye-threatening condition in which an early treatment is essential for a better outcome. There was no financial support for this case report.</p> <p>Keywords: Herpes Zoster; Hyphema; Hemorrhagic Glaucoma; Immunosuppression.</p>
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77. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Anna Victoria Porfirio Ramos Caiado - Fellow
e-mail: annavicporfirio@hotmail.com

CEP Number: ---

5. ABSTRACT (REQUIRED):

Title: Clinical features and presentation of unilateral refractory scleritis

Author and Co-authors: Anna Victoria Porfirio Ramos Caiado

Purpose: Understand the emerging therapies in scleritis, whose early diagnosis and intervention can be decisive for a satisfactory visual outcome.

Methods: Case Report of unilateral refractory scleritis in a young woman

Results: A 26-year-old female, without any history of ocular and systemic pathology, presented with decreased vision in her left eye accompanied by ocular pain and hyperemia of 1 week duration. On examination, his best-corrected visual acuity (BCVA) was 20/20 in the right eye and 20/50 in the left eye. Slit-lamp examination revealed edematous sclera, globe tenderness and prominent deep episcleral vessels. The diagnosis of diffuse anterior scleritis was established. Although the diagnosis of scleritis is based on medical history and clinical examination, an extensive investigation was performed for other infectious and underlying systemic diseases. Scleritis is characterized by eye pain and redness of the sclera and episclera. The severity of scleritis varies greatly, but the disease can result in loss of vision and be difficult to treat. Most of the pathologic data suggest that scleritis is an immune-mediated pathology and a systemic disease is diagnosed in about one-half of patients with scleritis. The patient had a positive result for the purified protein derivative (PPD) skin test (21 mm induration) and history of contact with a confirmed tuberculosis case. The remainder of her review of symptoms was negative. Antitubercular chemotherapy was started in combination of isoniazid, rifampicin, ethambutol and pyrazinamide initially for 8 weeks, followed by two drugs (rifampicin and isoniazid).

Conclusion: The pain gradually worsened despite treatment and periocular triamcinolone was prescribed unsuccessfully, so oral prednisone 1 mg/kg body weight was given once daily. Left eye pain and redness continued to worsen and intravenous pulse methylprednisolone therapy was prescribed for three days. There was partial improvement in pain for 5 days, but no complete resolution was led. Another exhaustive systemic investigation was carried out and a multimodal imaging was performed ruling out other causes. Considering the worsening despite the treatment, oral methotrexate was added, and another intravenous pulse methylprednisolone therapy was prescribed. The patient's symptoms improved initially but two weeks later the scleritis worsened. She was started on cyclophosphamide pulse therapy leading to the successful remission of the disease for two weeks until now.

Keywords: Scleritis; sub-Tenon's triamcinolone, cyclophosphamide, refractory scleritis

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<p>3. THEME: (REQUIRED) Check one:</p> <p>INFLAMMATION</p>	<p>5. ABSTRACT (REQUIRED): Title: Clinical aspects and epidemiological profile of uveitis cases at a reference university hospital in São Paulo, Brazil</p> <p>Author and Co-authors: Bárbara Guimarães Lisboa Lima Heloisa Nascimento</p> <p>Purpose: The aim of this study was to describe the epidemiological profile of uveitis cases treated at Hospital São Paulo over a year period after COVID 19 pandemic. Identify the presentation pattern of intraocular inflammation on the basis of clinical, anatomical, etiologic, and demographic criteria.</p> <p>Methods: Consecutive patients who presented for the first time at the outpatient uveitis clinic were analyzed in a prospective, observational study, conducted between April 2022 and April 2023. Age, gender, clinical characteristics, visual acuity at the time of diagnosis, clinical aspect and etiologic diagnoses in patients with and without human immunodeficiency virus (HIV) were described.</p> <p>Results: Of the 100 patients in the study in progress, 50% were male and 50% were female, 3% of the patients were HIV-positive, the patients' mean age was 43 years and 20% were legally blind (best-corrected visual acuity (BCVA): ? 20/400) at the first evaluation. Anterior uveitis was observed in 39% of the patients, posterior uveitis, in 43%, intermediate uveitis, in 9% and panuveitis, in 5%, 10% presented with scleritis. The most prevalent diagnoses was toxoplasmosis (26%), syphilis (4%), tuberculosis (5%), Vogt-Koyanagi-Harada (3%), sarcoidosis (2%), acute retinal necrosis (1%).</p> <p>Conclusion: The present study confirmed the historical importance of infectious uveitis in our population, especially ocular toxoplasmosis. Epidemiological studies point to different presentation patterns of uveitis in different populations, these may reflect the distinct characteristics of each institution. The current results can help determine the present epidemiology of uveitis and its changes over time in Brazil and increases essential information about the disease. Many uveitic entities are curable and visual damage can be prevented or limited if treated early and appropriately.</p> <p>Keywords: Epidemiology; uveitis; syphilis; toxoplasmosis; tuberculosis.</p>
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79. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Taiane Kelly Lima da Silva - Fellow

e-mail: taianekellys@hotmail.com

CEP Number: ---

5. ABSTRACT (REQUIRED):

Title: Ultra-Widefield Multimodal Imaging in Uveitis

Author and Co-authors: Taiane Kelly Lima da Silva Carlos Eduardo de Souza

Purpose: We aim to review the principles of ultra-widefield fundus imaging and discuss its clinical use in the diagnosis and management of uveitis.

Methods: A review of the PubMed database was performed using the key words: uveitis, ultra-wide field imaging, Optos. Publications were selected based on content and relevance.

Results: Fundus imaging has had an important evolution over the years. Nowadays, it is possible to capture up to 200° of the retina compared to 20° of the posterior pole with the first fundus camera developed. Ultra-wide field (UWF) imaging is defined as a single capture image, centered on the fovea, that captures the anatomical features of the retina anterior to the ampulla of the vorticoses veins in all four quadrants. It includes the imaging modalities: background color retinography, autofluorescence (FAF), fluorescein angiography (FA), indocyanine green (ICGA) and more recently, optical coherence tomography (OCT). It has become a valuable tool to reveal peripheral pathologies that were hardly noticed before. In cases of uveitis, diagnosis and management depend on clinical examination and multiple imaging modalities, and with UWF it was possible to demonstrate peripheral capillary changes in a silent-appearing background. Studies have revealed greater detection of peripheral lesions, areas of non-perfusion, neovascularization, peripheral exudates through UWF AF compared to 50 degree AF. UWF captured 40% more areas of cytomegalovirus retinitis compared to conventional photography. It detected active vasculitis not otherwise detectable in 85% of eyes with Behcet's retinal vasculitis, influencing the treatment instituted in those patients and the prognosis of eye disease.

Conclusion: The UWF has evolved a lot in recent decades. It has improved the understanding of the pathophysiology of vitreoretinal disorders and became an essential tool for their identification. It can also auxiliare the management of uveitis and the prognosis of these diseases.

Keywords: ultra-widefield image, uveitis, optos

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Keywords

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80. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Arnaldo Roizenblatt - R1
e-mail: arnaldo.roizenblatt@unifesp.br

CEP Number: 1455070

5. ABSTRACT (REQUIRED):

Title: Ocular, systemic and electrophysiologic findings in Knobloch syndrome: a 21-year follow-up

Author and Co-authors: Roizenblatt A, Berezovsky A, Salomão SR, Rocha DM, Watanabe S.

Purpose: To report a case of Knobloch Syndrome assessed with multi-modal ophthalmic testing and full-field electroretinogram (ERG) with 21-year follow-up.

Methods: A 28-year-old patient was evaluated due to bilateral progressive visual loss, worse in the left eye, initiated at 2 years of age along 21 years. The patient underwent a complete ophthalmologic examination, multimodal imaging, ERG and genetic testing.

Results: At 8 years of age, visual acuity with glasses (RE:-13.00-1.50x30°, LE:-13.50-2.50x170°) was 20/100 in the right eye (RE) and 20/400 in the left eye (LE) with vascular attenuation, optic disc pallor and myopic fundus in both eyes. Normal rod and reduced cone responses were detected in ERG, consistent with cone dystrophy. Bilateral lensectomy due to bilateral lens subluxation was performed. At 28 years of age, VA was 20/250 in RE and 20/400 in the LE. Bilateral severe secondary glaucoma was developed, requiring glaucoma implant valve in RE. Cup-to-disc ratio of 0.9 in RE and total in LE, marked retinal pigment epithelium (RPE) atrophy in posterior pole and presence of peripheral RPE hyperplasia in both eyes. Spectral domain OCT showed diffuse neuro-retinal and choroidal thinning with outer layer atrophy. Cone-rod dysfunction, with non-progressive reduced photopic and progressively reduced scotopic responses were found in a 21-year follow-up, consistent with cone-rod dystrophy. Systemic manifestations included homocystinuria, occipital hair thinning, brachycephaly, bilateral preauricular pits and important kyphosis. Magnetic resonance imaging revealed craniofacial abnormalities and mega cisterna magna. The genetic analysis revealed homozygosity of the variant c.12-2A>T of the COL18A1 gene, confirming the Knobloch Syndrome.

Conclusion: Knobloch Syndrome involves different ocular and systemic presentations and its diagnosis may represent a challenge. Abnormalities as high myopia, lens subluxation and cataract are related with the altered collagen structure attributed to the gene COL18A1 mutation and are risk factors for complications in phacoemulsification surgery such as secondary glaucoma found in this case. Cone dystrophy and mega cisterna magna represent features not yet described in Knobloch Syndrome.

Keywords: Knobloch Syndrome, Electroretinogram, COL18A, Lens subluxation, high myopia

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81. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Frederico Galvani Harckbart Carvalho - R2
e-mail: fredghc@gmail.com

Advisor:

CEP Number: 4037004

5. ABSTRACT (REQUIRED):

Title: Accuracy of muscle insertion measurement in strabismus reoperation using OCT

Author and Co-authors: Frederico Galvani Harckbart Carvalho, Giulia Steuernagel Del Valle, Célia Regina Nakami, Norma Allemann, Simone Akiko Nakayama

Purpose: To evaluate if anterior segment OCT is accurate to determine the distance limbus-rectus muscle insertions in eyes previously submitted to strabismus surgery.

Methods: Retrospective analysis of medical records and OCT (Visante OCT, Zeiss) images of patients who underwent strabismus reoperations from 2019 to 2022. Intraoperative measurements were considered gold standard and were compared to OCT measurements. A maximum difference of 2-mm between both methods was considered as satisfactory accuracy. The exclusion criteria were: lack of intraoperative data and/or inability to determine muscle insertions at OCT.

Results: A total of 22 muscles of 17 patients who underwent reoperations were evaluated (10 women, mean age: 28.05 years. Twelve 12 (70.58%) patients had residual deviations, while 5 (29.41%) were consecutive. Horizontal deviation was esotropia in 8 patients and exotropia in 9 patients. Preoperative horizontal deviation ranged from 15 to 50 prism diopters (PD), mean: 34.23 PD. Reoperation included 19 medial rectus muscles and 3 lateral rectus muscles, and accuracy of OCT measurements was 57.89% and 100%, respectively. Mean difference between the Visante measurement and the intraoperative measurement was 1.85 for the medial rectus muscle and 0.69 for the lateral rectus muscle. Accuracy of OCT measurements considering the sample of 22 muscles analyzed was 63.63%.

Conclusion: The accuracy of the preoperative muscle insertion measurements using OCT was satisfactory, and results suggest that data can be considered for surgical planning of strabismus reoperation.

Keywords: Preoperative; anterior segment OCT; Strabismus; Reoperation.

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Keywords

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

Name: Cristiana Ronconi Lopes - PG0

e-mail: cristianaronconi@gmail.com

Advisor: Paulo Schor

CEP Number: 44001-336

5. ABSTRACT (REQUIRED):

Title: Validation of Cloudscaper Optotypes versus LEA Symbols for Virtual Visual Acuity Measurement in Children 3 to 16 Years Old

Author and Co-authors: Cristiana Ronconi Lopes, Julia Dutra Rossetto, Luisa Moreira Hopker, Ana carolina Sarmento Barros Carneiro, Bárbara Stofel Ventorin, Paulo Schor

Purpose: Visual acuity (VA) measurement provides prompt data for visual screening and is the critical measure for visual function assessment in clinical trials. The present study aims to compare best-corrected (BC) distance VA results obtained using Cloudscaper symbols (CS), with LEA Symbols in children from 3 to 16 yo.

Methods: Cross-sectional study with 560 children. BCVA from the right eye (OD) was virtually assessed using the CS, a new optotype developed by Eyespy 20/20. Both CS and LEA charts were presented on a smartphone. The software registered the time to assess VA, each logMAR stimulus presented, and patient's responses. Subjects were sorted into groups by age (3 to '<'6 yo, 6 to '<'10 yo, 10-16 yo) and VA level (?20/32, '<'20/32 to 20/63, '<'20/63 to 20/125).

Results: Mean age of 8.8 y.o. (SD3.0 - range 3, 16). Mean logMar OD VA was 0.122 (SD 0.179 - range -0.10, 0.80) with LEA and 0.180 (SD 0.189 - range -0.10, 0.80) with CS. The absolute mean VA difference between CS and LEA in LogMAR was 0.099 (SD 0.082 - range 0.0, 0.14). VA measured by both methods were highly correlated for all age groups (Spearman correlation coefficient: 0.74, $p < 0.0001$). Younger children took longer to perform the test. The first test presented had longer duration, regardless of the optotype tested.

Conclusion: CS optotypes were equivalent to LEA symbols, and therefore, reliable for visual screening in children.

Keywords: Visual Acuity, Visual screening, visual exam, children

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83. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Aileen Miwa Tabuse - R3

e-mail: aileenmiwa@gmail.com

CEP Number: 2469885

5. ABSTRACT (REQUIRED):

Title: Quality of life in visual impaired children treated for Early Visual Stimulation after the introduction of Telemedicine

Author and Co-authors: Aileen M. Tabuse, Ana Carolina S. B. Carneiro, Giulia S. Del Valle, Marcia C. B. Lopes, Arthur G. Fernandes, Advisors: Mauro Silveira de Queiroz Campos, Célia Regina Nakanami

Purpose: In the context of the COVID-19 pandemic, Telemedicine has risen as a reliable tool for ophthalmic consultation. However, the success of this model depends on the acceptance and experience of patients. The aim of this study is to evaluate the vision-related quality of life in children from the Early Visual Stimulation Clinic Sector after the introduction of Telemedicine consultations.

Methods: A cross-sectional pilot study was carried out from July 2022 to October 2022 at the Early Visual Stimulation (EVS) service. The CVFQ instrument was used to evaluate six subscales: General Health, General Vision Health, Competence, Personality, Family Impact, and Treatment, in both versions for less or older than 3 years old, according to the patient age. It was administered to the patient's guardians during in-person visits. Answers were compared between two groups: in-person consultation only and hybrid (in-person combined with teleconsultation) group. Socio-demographic analysis was carried out to characterize the study population.

Results: The CVFQ was applied to 17 guardians of infantile patients from the hybrid group and to 14 from the in-person consultation group. The mean age was 4.83 ± 1.32 , mostly female (64.71%) in the first group and 6.28 ± 2.96 years old, mostly male (57.14%) in the second one. There was no statistical difference between the two groups concerning the overall score and each specific subscale. Family income larger than R\$3000,00 had a significant impact on both General health ($p=0.003$), General Vision ($p=0.038$), and Personality ($p=0.040$) when compared to R\$1000-2000 and R\$2000-3000 family income groups. Time of treatment also demonstrated a higher impact on General Health - each year of treatment increased the score by 0.08 ($p=0,036$).

Conclusion: The results from the CVFQ answers between the hybrid and in-person consultation groups showed no significant differences. The socio-demographic factor that had an impact on the subscales was family income greater than R\$3000,00.

Keywords: Quality of life; Vision, low/rehabilitation; Rehabilitation services; Telemedicine

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Methods
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Conclusion
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84. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Paulo Schor

CEP Number: 4149301120

5. ABSTRACT (REQUIRED):

Title: Corneal crosslinking with barbatimão and açaí extract in rabbits: biomechanical and optical effects

Author and Co-authors: Bernardo Kaplan Moscovici Patrícia Alessandra Bersanetti Paulo Schor

Purpose: Our study aims to apply barbatimão and açaí extracts to live rabbits and to evaluate the denaturation temperature values and the corneal transparency after one month of the procedure.

Methods: Preparation of extracts The solution was prepared by dissolved butanol extract in an excipient of eye drops (vehicle for the active ingredient, helping in its preparation or stability) designed by the company Ophthalmos (São Paulo, Brazil). The animals were submitted to anesthesia, and the rabbits were submitted to corneal deepithelialization, followed by the application of barbatimão or açaí extract for 30 min, with an interval of 5 minutes. Each rabbit was submitted to the procedure in both eyes, and the right eye served as a control (only deepithelialization) and the left eye for the study group. They totaled five rabbits (10 eyes). For differential scanning calorimetry (DSC) experiments, the corneas were cut into small samples of approximately 2-3mg, each used for a separate analysis, Three pieces were used and sealed in individual aluminum crucibles. Analysis at the slit lamp: Our pilot study tried to perform endothelial counting with a specular microscope. However, the measurement was unreliable. However, we chose to evaluate the corneas in the slit lamp adapted for using corneas within Optisol (Chiron Ophthalmics, Irvine, California) to assess transparency.

Results: The mean denaturation temperature was 65,96 C in controls (SD 0,63) , 66,65 C in the Acai extract group (SD 0,46) and 65,89 C in the barbatimão group (SD 0,12). These differences were not statistically significant. All the treatment eyes (both acai and barbatimao group) had neovascularization and corneal opacity after one month in contrast to none in the control group.

Conclusion: In a study presented at the ARVO annual meeting in 2019, Paulo Schor showed that the butanolic extract promoted an increase in the denaturation temperature. We could not find this difference one month after the procedure. Maybe we need a more complete biomechanical stiffness measurement after natural extracts Also, we shall improve its purity to reduce the inflammatory/toxic response in rabbits to obtain better cornea transparency after the procedure.

Keywords: crosslinking;acai;barbatimao;stiffness

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85. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Walton Nosé

CEP Number: 4256901

5. ABSTRACT (REQUIRED):

Title: ORAL RIBOFLAVIN AND SUNLIGHT EXPOSURE IN THE TREATMENT OF PROGRESSIVE KERATOCONUS: PRELIMINARY RESULTS

Author and Co-authors: Edilana Sa Ribeiro Campelo¹, Natalia Ramalho¹, Lucas Alves¹, Marcela Oliveira¹, Taciana Higino¹, Jose Alvaro P. Gomes², Bruna Ventura¹, Walton Nose² ¹Altino Ventura Foundation - FAV ²Federal University of Sao Paulo - UNIFESP

Purpose: To evaluate the use of oral riboflavin (vitamin B2) with sunlight exposure to treat progressive keratoconus (PK).

Methods: This interventional study evaluated patients with PK at FAV, Recife, Brazil. The research was approved by FAV and UNIFESP Institutional Review Board (process number 4256901). B2 plasma levels were quantified, and those with B2 deficiency received vitamin supplementation before enrollment. Patients with normal B2 levels were instructed to ingest 60mg/day of B2 and, 2 hours later, to be exposed to sunlight for 30 minutes/day without sunglasses for 3 months. Patients underwent complete ophthalmological, cornea topography, pachymetry, specular microscopy, and cornea OCT examination pre and 1-year post-treatment.

Results: Fifty-nine patients (114 eyes, 35 [59.3%] males) with the mean [standard deviation] age of 18.4 [4.0] years (range, 11-31 years) were evaluated. Five (8.4%) patients had B2 deficiency (below 137 mcg/L). The keratoconus stage was classified as mild in 6 (5.3%) eyes, moderate in 26 (22.8%), advanced in 30 (26.3%), and severe in 52 (45.6%). The corrected distance visual acuity at pre and 1-year post-treatment were 0.47 [0.37] and 0.51 [0.37] logMAR, respectively ($p = 0.73$). Topography astigmatism varied between 6.6 [3.2] and 6.1 [3.3] D at baseline and 1-year after ($p = 0.58$). Steep K was 55.1 [7.1] and 55.8 [6.6] D, respectively ($p = 0.04$). No significant changes from pre and post-treatment were found in central K ($p = 0.10$), thinnest pachymetry ($p = 0.07$) and minimum epithelium thickness ($p = 0.67$). Central K was 57.9 [7.6] and 59.0 [8.4] D, thinnest pachymetry was 414 [49.3] and 403 [48.3] micra, minimum epithelium thickness was 41.8 [4.1] and 42.4 [4.1] micra, respectively. Keratoconus progressed in forty-eight (42.1%) eyes, they were referred for corneal crosslinking. No adverse effects were reported.

Conclusion: Topographic and pachymetric parameters remained stable in 57.9% of eyes after 1-year of oral riboflavin and sunlight exposure as treatment for progressive keratoconus. A second arm of the study with corneal tomography analysis is ongoing. Financial support: FAV

Keywords: Keratoconus; Cornea topography; Riboflavin

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86. FIRST (PRESENTING) AUTHOR (REQUIRED):

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Advisor: Denise Freitas

CEP Number: 0256/2021

5. ABSTRACT (REQUIRED):

Title: Corneal Confocal Microscopy Findings in Patients with Primary Sjögren's Syndrome and Small Fiber Neuropathy

Author and Co-authors: Laura Caldas dos Santos, PG-1 Virginia Fernandes Moça Trevisani, thesis co-advisor Denise de Freitas, thesis advisor

Purpose: To evaluate the use of Corneal Confocal Microscopy for the diagnosis of Small Fiber Neuropathy (SFN) in patients with Primary Sjögren's Syndrome (SS) by assessing corneal nerve fibers and correlating these findings to the changes found in skin biopsies, which is the gold standard for the diagnosis of this neuropathy.

Methods: 50 patients with SS over 18 years of age and with symptoms of SFN will be included in this study. Patients with DM type 2, amyloidosis and contact lens users will be excluded. A validated Small Fiber Neuropathy Screening List (SFNSL) questionnaire will be applied to the patients to help select those with suspected SFN. Those 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. The sub basal corneal nerve plexus will be evaluated by imaging each eye looking for morphological parameters, corneal nerve fiber density, number of nerve fibers and their depth. To quantify this nerve plexus, CCMetrics/ACCMetrics will be used as a method of nerve tracking and analysis. 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. As control we will have other patients with SS, who during the application of the SFNSL questionnaire did not raise suspicion for SFN. These patients will also undergo corneal confocal microscopy to look for changes related to SFN. Those with suspected changes will undergo corneal sensitivity testing. In these patients, skin biopsy will also be indicated to investigate the presence of SFN-related changes. Financial support: Research with own funding.

Results: Research is in data collection phase.

Conclusion: No conclusions available.

Keywords: Sjögren, Corneal Confocal Microscopy, Small Fiber Neuropathy.

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87. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Luciana Lopes Rocha - PG1
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Advisor: Denise Freitas

CEP Number: 0843/2017

5. ABSTRACT (REQUIRED):

Title: ENDOPHTHALMITIS IN ACANTHAMOEBA KERATITIS

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

Purpose: To evaluate the occurrence, characteristics and evolution of endophthalmitis in cases of Acanthamoeba keratitis

Methods: Evaluate the number of cases of endophthalmitis in patients with Acanthamoeba keratitis treated at Escola Paulista de Medicina from July 1987 to July 2022. Evaluate possible risk factors, diagnosis, treatment and evolution

Results: Since July 1987, 538 cases of Acanthamoeba keratitis were treated at the Escola Paulista de Medicina until July 2022. Of these, two developed endophthalmitis. Both cases occurred in contact lens wearers with a clinical history of Acanthamoeba keratitis with a delay in diagnosis of 2 and 4 months. They were diagnosed by culture and reported using topical corticosteroids without previous specific treatment for Acanthamoeba. Once diagnosed, the patients immediately started treatment with topical polyhexamethylbiguanide and topical propamidine isethionate, according to the protocol adopted in our service. Both cases underwent therapeutic/tectonic corneal transplantation due to lack of response to clinical treatment with 2 and 12 months of treatment in our service. Diagnosis of endophthalmitis was made at 3 and 12 months after corneal transplantation. One patient was treated with intravitreal and subconjunctival voriconazole and progressed to healing of the process, but the eye suffered phthisis, and the second was treated with topical and oral voriconazole 200mg/day, associated with topical polyhexamethylbiguanide and, with the patient's authorization, also subconjunctival and intracameral injection of polyhexamethylbiguanide evolving with the healing of the process with good evolution and today presents a vision of 20/100

Conclusion: Late diagnosis, previous use of topical corticosteroids without specific treatment for Acanthamoeba and therapeutic/technical correction transplantation are proven risk factors observed in our cases and in the literature. One should not underestimate the fact that there are cases of Acanthamoeba keratitis that are unresponsive to currently available treatments and may be at high risk for this serious evolution

Keywords: Keratite; Acanthamoeba; endophthalmitis

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88. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Luciana Frizon - PG1

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Advisor: José Álvaro Pereira Gomes

CEP Number: 390265

5. ABSTRACT (REQUIRED):

Title: Assessing the ocular surface, oral and gut microbiome in Stevens-Johnson syndrome

Author and Co-authors: Luciana Frizon Rafael Jorge Alves de Alcântara Talita Trevizani Rochetti Ana Luisa Hoffing-Lima José Álvaro Pereira Gomes

Purpose: This study aims to characterize the ocular surface, oral and gut microbiomes in patients with light, moderated and severe manifestation of SJS by using Next Generation Sequencing method and to compare it to a healthy microbiome.

Methods: Sterile swabs will be used to collect samples from conjunctiva and oral mucosa as well fecal samples from 9 patients with SJS divided in 3 groups (light, moderated and severe), 3 patients with Sjogren syndrome and 3 healthy controls. Concurrent use of topical or systemic medications, and bandage contact lenses will be documented. Topical and systemic antibiotics will be stopped for 1 month before the collection date. Severity of ocular surface and systemic disease will be graded.

Results: Even though the alteration of the ocular microbiomes in SJS patients compared to healthy subjects has been already reported and studies already documented the effects of intestinal dysbiosis in patients with many diseases such as Sjogren's syndrome, there is no information regarding the relationship between dysbiotic intestinal microbiome with conjunctival and oral microbiome in SJS severity of the chronic cases

Conclusion: This valuable information will be important to guide treatment with prebiotics and probiotics to restore the gut ecosystem and bring back a healthy ocular surface.

Keywords: Ocular ocular surface, oral microbiome, gut microbiome, Stevens-Johnson syndrome

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89. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: no needed

3. THEME: (REQUIRED) Check one:

INFECCION

5. ABSTRACT (REQUIRED):

Title: Herpetic eczema with ocular involvement (Kaposi's Varicelliform Eruption): a case report.

Author and Co-authors: Tulio Ruiz Eschiapati, Carolina Ferreira Huang, Renata Portela Boro

Purpose: To report a rare case of a patient who presents Herpetic eczema with ocular involvement (Kaposi's Varicelliform Eruption), the diagnostic procedures applied and the management of this condition.

Methods: A 19-year-old male patient presented to our service with a complaint of periocular edema for the past 4 days and a vesicular rash 2 days later. He had a past medical history of severe atopic dermatitis (in use of betamethasone cream, hydroxyzine and emollients) The past ocular history showed vernal keratoconjunctivitis (denies use of eyedrops) and the family history were unremarkable. He denied other systemic symptoms. At presentation, the best corrected visual acuity (BCVA) was 20/63 in the right eye and 20/20 in the left eye. On the ectoscopy there was rash mainly in the right periocular region but also in the forehead on both the right and left sides, the lesions seem to be in the stage of crusts. Also, in the left periocular region, there is eczema. The anterior biomicroscopy of the right eye showed after instillation of fluoresceine and under blue cobalt light, we saw this dendritic keratitis with terminal bulbo. The anterior biomicroscopy of the left eye was unremarkable. For the work-up of this case, we ordered hospitalization to investigate immunodeficiency, complementary exams (Serologies and general exams) and dermatological evaluation.

Results: During the hospitalization, the serologies and general exams showed leukocytosis: 15300 (with no left shift), PCR: 30,32, Renal function: normal, anti-HIV negative, sifilis serology negative. After dermatology evaluation, the diagnosis was herpetic eczema with ocular involvement (Kaposi's Varicelliform Eruption). The patient was treated with Acyclovir 10mg/kg 8/8h IV for 5 days plus betamethasone cream + emollients, resulting in a clinical improvement, better ocular and dermatological condition, with atopic dermatitis compensation. On the hospital discharge, he was treated with oral acyclovir 2g/day for more 9 days (total time of treatment 14 days). On the photos: a three-month follow-up.

Conclusion: Atopic dermatitis (AD) is one of the most common chronic inflammatory skin disease in the world. There is a subset of patients with AD (about 3%) that exhibits a disseminated severe Herpes simplex virus (HSV) infection, under the name of eczema herpeticum (EH), causing a potentially life-threatening viral infection, also causing eye involvement, like corneal dendritic lesions. Therefore, the ophthalmologist plays an important role in identifying these potentially life-threatening conditions so that these patients can be properly managed and treated.

Keywords: Atopic dermatitis, Herpetic eczema, Kaposi's Varicelliform Eruption

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90. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 10786039876

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5. ABSTRACT (REQUIRED):

Title: Characteristics of presentation of ocular tuberculosis in a Cornea and External Ocular Diseases department

Author and Co-authors: Huang, Carolina Ferreira, Wakamatsu, Tais Hitomi, Borges, Joao Victor, Vieira, Luiz Antonio

Purpose: Ocular tuberculosis is an uncommon manifestation of extrapulmonary Mycobacterium tuberculosis infection. It can present in a myriad of forms, being posterior uveitis the most common. However, extraocular manifestations including conjunctival, corneal and scleral lesions might be the first signs of the disease and the hypothesis of tuberculosis must be remembered in those cases. The purpose of this study is to describe and analyze the ocular findings upon diagnosis of presumed ocular tuberculosis in a tertiary ophthalmology center in São Paulo, Brazil, as well as the outcomes after proper treatment.

Methods: This is a retrospective and descriptive study in which we will analyze the medical records from patients with presumed ocular tuberculosis that followed up in the UNIFESP External Ocular Diseases and Cornea division from 2020 to 2022.

Results: A total of 14 patients, 6 men and 8 women, with presumed ocular tuberculosis were analyzed. The mean age was 47 years old with a pattern deviation of 17,58 years. The most common presentation found was scleritis in 7 patients (50%) and interstitial keratitis in 6 patients (42,8%). Only one patient had both manifestations. The diagnosis was essentially made by the results of Tuberculin Skin Test, which ranged from 11 to 25 with a median of 18. All patients were treated with an association of rifampicin, isoniazid, pyrazinamide and ethambutol for at least 6 months. 3 patients (21,42%) had no improvement in their clinical condition, 3 (21,42%) had a partial response to treatment and 8 (57,1%) were completely cured and asymptomatic at the end of the preconized therapy.

Conclusion: Although posterior uveitis is the most common presentation of ocular tuberculosis, other findings in the anterior segment must raise suspicion of the disease, specially escleritis and interstitial keratitis, the two most common presentations found in our Cornea and external diseases service.

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Keywords: Ocular tuberculosis, scleritis, interstitial keratitis

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91. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Guilherme Niciunovas - R2

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CEP Number: 0843/2017

3. THEME: (REQUIRED) Check one:

INFECCION

5. ABSTRACT (REQUIRED):

Title: Seasonal trends of Acanthamoeba keratitis in a reference service

Author and Co-authors: Guilherme Niciunovas, Celso de Souza Dias Júnior, Maria Cecília Zorat Yu, Flávio Eduardo Hirai, Luciana Lopes Rocha, Larissa Fagundes, Viviane Peracini Sant'Anna, Ana Luisa HöflingLima, Denise de Freitas

Purpose: To investigate the existence of seasonality (temporal variability in the number of cases) in confirmed cases of Acanthamoeba keratitis (AK) by the Laboratory of Ocular Microbiology (LOFT) of the Department of Ophthalmology at UNIFESP over a period of 20 years

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 October 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 dummy variables and the value of $p < 0.05$ was considered statistically significant. All analysis was performed using the Stata program

Results: Pending

Conclusion: Pending

Keywords: Acanthamoeba; Keratitis; Seasonality

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Purpose
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Results,
Conclusion
Keywords

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(CO) CORNEA AND EXTERNAL DISEASE

92. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: João Victor Borges Gomes - R2

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CEP Number: 0215/2022

3. THEME: (REQUIRED) Check one:

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5. ABSTRACT (REQUIRED):

Title: CLINICAL ASPECTS AND QUALITY OF LIFE OF PATIENTS WITH ALLERGIC KERATOCONJUNCTIVITIS

Author and Co-authors: GOMES, JVB, MARINO, LM, WANDALSEN, GF, SANTOS, MS

Purpose: Allergic conjunctivitis is one of the most common forms of conjunctivitis. Atopic keratoconjunctivitis (AKC) and vernal keratoconjunctivitis (VKC) involve type I and type IV hypersensitivity reactions. Diagnosis is based on clinical signs and symptoms. Other atopic conditions may be correlated. We aim to describe clinical aspects and the impact of disease on quality of life

Methods: Evaluation of 27 patients with allergic keratoconjunctivitis who were treated in the corneal and external eye diseases and allergology sectors at the Federal University of São Paulo. Evaluation was carried out through a review of medical records and application of a questionnaire to assess symptoms, triggers and patient's quality of life during periods of exacerbation of symptoms

Results: More than 70% of patients had VKC. Male/female ratio was 2:1 with all patients younger than 20 years-old. Mean age of all patients was 13-years-old and the mean age at onset of symptoms was 5-years-old. Episodes of eye redness, photophobia and itching were reported to be present in all months of the year in about 50% of all patients. Intensity of these symptoms was also reported by the patient and graduated on a scale from 1 to 10 allowing us to assess patient's perception of symptom control. Clinical signs were also evaluated and the major features included conjunctival hyperemia and corneal involvement, such as punctate keratitis and corneal shield ulcers. Giant papillae and limbal involvement were also observed. Allergy panel with results of skin prick test and/or allergen-specific immunoglobulins E (IgE) test were also evaluated and less than 20% were negative. Association with other atopic conditions were observed in all patients, being allergic rhinitis and atopic dermatitis the most common. Lubricants, antiallergic eyedrops and topic steroids were used in more than 90% of patients. Immunosuppressive systemic drugs were used in few patients. Also, questionnaire showed reduced quality of life during times of exacerbation of symptoms

Conclusion: VKC and AKC are associated with a hypersensitivity reaction and chronic disease of the ocular surface. Its management involves not only topical drugs but also systemic immunosuppressive and/or immunobiological therapy. Control of the condition is essential since the exacerbation of symptoms promotes a gradual reduction in quality of life

Keywords: Allergic conjunctivitis; Allergic keratoconjunctivitis; Ocular allergy; Quality of life

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(CO) CORNEA AND EXTERNAL DISEASE

93. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Guilherme Macedo Souza - R3

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CEP Number: 0451/2021

3. THEME: (REQUIRED) Check one:

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Keywords

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5. ABSTRACT (REQUIRED):

Title: NEISSERIA KERATOCONJUNCTIVITIS: DESCRIPTION OF CASES IN TERTIARY CARE CENTER

Author and Co-authors: Guilherme Macedo Souza, Klaus Anton Tyrrasch, Maria Cecília Zorat Yu, Ana Luisa Hofling-Lima and Denise de Freitas

Purpose: To describe the cases of Neisseria keratoconjunctivitis identified at Sao Paulo Hospital.

Methods: Observational, descriptive, and retrospective study. All cases of hyperacute conjunctivitis from the Eye Emergency Service between 2016 and 2021 - which were identified gram-negative diplococci and/or Neisseria spp. at microbiological analysis - were included. Epidemiological aspects, clinical presentation and outcomes were collected from medical records.

Results: 130 cases were identified - 110 were confirmed by culture (among these, in only 17.27% gram-negative diplococci had not been previously identified by bacterioscopy) and 20 diagnoses were made through bacterioscopy and clinical history. 9 were gonococcal ophthalmia neonatorum and none of them evolved with keratitis. They had, on average, 15.9 days old when were taken for ophthalmological evaluation at the tertiary service. The mean age of the remaining 121 participants was 23.21 years old, ranging from 9 months to 69 years, 27.3% were under 18 years old and 12.4% were under 14, 63.6% were male and 36.4% female. Out of the 121 cases, 26.44% had corneal involvement, among these, 40.62% presented or evolved with corneal perforation, all of whom underwent surgical procedure at some point during clinical follow-up. 3 patients had positive serology for HIV. Out of them, only 1 had no corneal involvement and the 2 who had keratitis evolved with perforation.

Conclusion: Despite similar proportions of corneal compromise and perforation, the present study identified a much higher number of cases in relation to previously published studies. Bacterioscopy proved to be extremely useful in the management of these patients. Even though it should not replace confirmatory tests, it is a quick and cheap method which allows the beginning of the treatment in an assertive way. In this case series, 100% of HIV+ patients who had keratitis evolved to corneal perforation. More studies about this topic are needed to properly establish this possible association. Neisseria keratoconjunctivitis must be seen as a public health issue as it affects economically active population and possibly leads to visual impairment. It is a concern that medical and public authorities must face

Keywords: Gonococcal keratoconjunctivitis, keratitis, hyperacute conjunctivitis

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94. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 0451/2021

3. THEME: (REQUIRED) Check one:

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5. ABSTRACT (REQUIRED):

Title: DESCRIPTION OF NEISSERIA KERATOCONJUNCTIVITIS CASES IN A TERTIARY CARE CENTER

Author and Co-authors: KLAUS ANTON TYRRASCH, GUILHERME MACEDO SOUZA, MARIA CECILIA ZORAT YU, ANA LUISA HOFLING-LIMA, DENISE DE FREITAS

Purpose: TO EVALUATE AND QUANTIFY CASES OF NEISSERIA KERATOCONJUNCTIVITIS DIAGNOSED IN SAO PAULO HOSPITAL EMERGENCY ROOM

Methods: OBSERVATIONAL, RETROSPECTIVE AND DESCRIPTIVE STUDY. THE CASES BETWEEN 1975 AND 2021 WITH IDENTIFICATION OF GRAM-NEGATIVE DIPLOCOCCI AND/OR POSITIVE BACTERIAL CULTURE FOR NEISSERIA SPP WERE INCLUDED IN THE STUDY, TO REVIEW THE FREQUENCY OF INFECCION IN THE PERIOD.

Results: IN PROGRESS

Conclusion: IN PROGRESSO

Keywords: KERATITIS, CONJUNCTIVITIS,

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(CO) CORNEA AND EXTERNAL DISEASE

95. FIRST (PRESENTING) AUTHOR (REQUIRED):
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CEP Number: 1269/2018 / CAAE: 01006718.2.0000.5505

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5. ABSTRACT (REQUIRED):
Title: Efficacy and safety of bovine L-hydro pericardium on primary pterygium treatment

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Author and Co-authors: Mirella Millena Carmo de Andrade, Júlia Brandão de Paiva Teixeira Custódio, Luciene Barbosa de Sousa

Purpose: Evaluate the safety and efficacy of the bovine L-Hydro pericardium as an aid to resurfacing in the treatment of the primary pterygium

Methods: This randomized clinical trial was conducted at Paulista School of Medicine, where 30 patients (30 eyes) with primary pterygium were selected for surgical treatment. The patients were randomized in 2 equal groups, group A underwent pterygium excision with bovine L-Hydro pericardium with 150µm thickness, and group 2 received receive conjunctival autotransplantation. We included patients over 18 years of age with a diagnosis of primary pterygium. We excluded patients with relapsed pterygium, history of ocular surface surgery or presence of symblepharon. Data, including visual acuity, detailed biomicroscopic examination, and funduscopy findings were documented in detail prior to surgery. After pterygium excision with the manual dissection technique, the bare sclera area was covered by pericardium graft or conjunctival tissue, depending on the randomization. The follow-up visits were scheduled for the 1st, 7th, 15th day after the procedure, and monthly until the eighth month. After the surgery, patients used ciprofloxacin plus prednisolone acetate eye drops, and lubricating drops every. Reepithelialization time and post-operative complications, as recurrence, conjunctival granuloma and corneal dellen were evaluated. Additionally, patients completed a subjective questionnaire with scale of pain and foreign body sensation.

Results: Until now, 20 patients were selected and 6 underwent surgery with 8 months of follow-up (5 with pericardium bovine graft, and 1 with conjunctival autograft). The epithelialization time of the group A ranged from 2 to 8 weeks. Among the patients who received L-Hydro pericardium, 1 had conjunctival granuloma and 1 had a recurrence of the pterygium. Recently, 7 patients underwent surgery, but these weren't included in the results because they are in the recent postoperative period.

Conclusion: L-Hydro pericardium can be considered for pterygium surgery, but further studies with more samples are needed to assess the efficacy and safety.

Keywords: Pterygium; Bovine L-Hydro pericardium

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(CO) CORNEA AND EXTERNAL DISEASE

96. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 0915P/2021

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Methods
Results,
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5. ABSTRACT (REQUIRED):

Title: Evaluation by confocal microscopy of patients with acute corneal hydrops submitted to stromal injection of autologous blood

Author and Co-authors: Ítalo Pena de Oliveira Lucas Baldissera Tochetto Tais Hitomi Wakamatsu Luiz Guilherme Ito da Cruz José Alvaro Pereira Gomes

Purpose: Acute hydrops is a condition characterized by corneal edema secondary to the rupture of Descemet's membrane, observed in cornea ectatic diseases, commonly resulting in significant worsening of visual acuity. Treatment includes clinical observation and use of anti-inflammatory and hyperosmotic eye drops, injection of gas into the anterior chamber, injection of blood into the corneal stroma, with no evidence of superiority between them. Few studies have assessed the local changes present in the acute event and the corneal sequelae that develop in the long term after the resolution of the edema, but none was found describing specific findings related to treatment with autologous blood. The objective of this work is to evaluate the clinical aspects of the cornea during acute hydrops using confocal microscopy in vivo, comparing with the changes present after the resolution of the condition, in patients treated with a stromal injection of autologous blood. Possible predictive signs of outcome and clinical findings related to observed complications will also be evaluated.

Methods: Prospective clinical study of consecutive cases of acute hydrops treated with an intrastromal injection of autologous blood during the period from April to November 2021. Inclusion criteria were: acute hydrops with corneal edema. Exclusion criteria were: previous surgical treatment, ocular perforation, absence of edema, or impossibility of follow-up or treatment. Participants were evaluated clinically, with corneal tomography and confocal microscopy at diagnosis, 30 and 90 days after treatment. Clinical data, such as affected area and visual acuity, were crossed with the corneal thickness measured on tomography and with the confocal microscopy findings. The elements observed in confocal microscopy were: epithelial morphology, presence of cysts, keratocyte morphology and density, stromal structure, presence of inflammatory cells, local alterations related to the use of autologous blood, and changes observed during the course of the condition.

Results: Nineteen patients diagnosed with acute hydrops were recruited, with a mean age of 21.9 years. Data are under processing.

Conclusion: .

Keywords: corneal hydrops, confocal microscopy

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(CO) CORNEA AND EXTERNAL DISEASE

97. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 874886044

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Purpose
Methods
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Keywords

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5. ABSTRACT (REQUIRED):

Title: CLINICAL AND OUTCOMES PROFILES IN PATIENTS WITH ISOLATED ACANTHAMOEBA KERATITIS VERSUS MIXED ACANTHAMOEBA KERATITIS

Author and Co-authors: Raquel de Oliveira Peluso (aluna residente) Denise de Freitas (pesquisadora responsável)

Purpose: Purpose: To compare the clinical profiles and outcomes of patients with Acanthamoeba keratitis (AK) with or without mixed infection (bacterial or fungi).

Methods: Methods: A retrospective analysis of microbiologically confirmed AK cases presenting to a tertiary care center over a 5-year period was conducted. The cases were diagnosed using a standardized confocal microscopy analysis with staining techniques confirmed by cultural methods and were treated, which tailored to the microbiology report.

Results: Results: in process.

Conclusion: Conclusions: in process.

Keywords: acanthamoeba; acanthamoeba keratitis; mixed keratitis infeccion.

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98. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 57035230

3. THEME: (REQUIRED) Check one:

INFLAMMATION

5. ABSTRACT (REQUIRED):

Title: Fibrin glue versus bipolar electrocautery for conjunctival autografting in primary pterygium surgery

Author and Co-authors: Renata Leonel Freire Mendes, José Álvaro Pereira Gomes

Purpose: To assess the effectiveness of fibrin glue compared to bipolar electrocautery in conjunctival autografting for the surgical treatment of pterygium.

Methods: In this prospective consecutive interventional study, patients with primary pterygium will randomly divided into one of 2 groups, group 1: patients undergoing conjunctival autografting using fibrin glue, and group 2: patients undergoing conjunctival autograft using bipolar electrocautery.

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Results: In progress

Conclusion: In progress

Keywords: pterygium surgery; Fibrin glue; bipolar electrocautery; conjunctival autografting

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99. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 65923717.5.0000.5505

3. THEME: (REQUIRED) Check one:

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5. ABSTRACT (REQUIRED):

Title: Evaluation of visual outcomes of patients with keratoconus treated in the Visual Rehabilitation Project in a tertiary referral hospital

Author and Co-authors: Victoria Sakamoto Mauro Campos Rafael da Silva Lemos Flávio Eduardo Hirai

Purpose: The purpose of this study is to assess the visual outcomes of patients with keratoconus included in the Visual Rehabilitation Project in Hospital São Paulo ? Unifesp (Federal University of São Paulo) during the period of December 2018 to September 2021

Methods: We performed a retrospective study of patients diagnosed with keratoconus referred to our External Diseases and Cornea Division between December/2018 and September/2021. We performed demographic data analysis including sex and age, and classified the condition according to the severity at service entry. Eyes with diagnosed disease progression were treated with crosslinking (CXL). Patients received conservative treatments to improve their visual acuities, such as spectacles or hard contact lenses, or more invasive procedures, such as intrastromal ring implants and corneal transplants (DALK ? Deep Anterior Lamellar Transplant or PK ? Penetrating Keratoplasty). Vision improvement was considered as vision of 20/40 or better in the eye with intervention. A review of the patient's medical records and supporting tests was done for this study. Data were represented as the mean \pm standard deviation (SD) for continuous variables or number and percentage (%) for categorical variables. Student's t-test or the Mann-Whitney non-parametric U-test was applied for comparing continuously distributed data between groups, and the Chi-squared test or Fisher's exact test was used to categorical data between groups. We applied multivariable logistic regression analysis to identify significantly correlated factors.

Results: In progress

Conclusion: In progress

Keywords: Keratoconus; Cornea; Visual Acuity;

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(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

Deadline: 11/2022

FORMAT:
Abstract should contain:
Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:
90cm x 120cm

2022 Research Days Abstract Form

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.

(CO) CORNEA AND EXTERNAL DISEASE

100. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Francisco Reinaldo de Sousa Neto - Fellow

e-mail: fr.reinaldo@gmail.com

CEP Number: 4051235

3. THEME: (REQUIRED) Check one:

INFLAMMATION

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Scientific Section Descriptions (two-letter code):

(BE) OCULAR BIOENGINEERING
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Deadline: 11/2022

FORMAT:

Abstract should contain:

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

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Scleritis: epidemiology, clinical features, evolution and treatment outcomes in a referral center in Brazil

Author and Co-authors: Francisco Reinaldo de Sousa Neto Denise de Freitas Laura Caldas dos Santos

Purpose: To evaluate the epidemiological and clinical characteristics, ocular complications, disease evolution, association with systemic diseases and treatments instituted in patients diagnosed with scleritis treated in the Cornea and external eye diseases sector of Hospital São Paulo- Escola Paulista de Medicina, in a way to create a database for future scientific interventions

Methods: Retrospective case series of patients diagnosed with scleritis treated in the Cornea and external ocular diseases of Hospital São Paulo- Escola Paulista de Medicina, between 2017 and 2022. The electronic health records will be reviewed and all data are evaluated and studied.

Results: In progress

Conclusion: In progress

Keywords: Scleritis, Autoimmune, Systemic associations, Inflammation, Treatment

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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>101. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Luciana Arias Fernandez - Fellow e-mail: lucianaaf@gmail.com</p> <p>CEP Number: 04125-120</p>
<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 aged 18-80 years, with primary glaucoma, 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, classified as moderate (29 individuals) or advanced (56 individuals) glaucoma according to Hodapp-Anderson-Parrish Classification, all of them must perform reproducible and reliable serial visual field exams in the last two years. 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. For the study, the eligible eye must meet the criteria, if both are eligible the right one will be selected. First, they will carry out an evaluation for learning in the Octopus perimeter, 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>
<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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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.

(CO) CORNEA AND EXTERNAL DISEASE

102. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Natalia Luz Aquino - Fellow
e-mail: natalialuzaquino@gmail.com

CEP Number: 9022250

3. THEME: (REQUIRED) Check one:

INFECCION

5. ABSTRACT (REQUIRED):

Title: Etiopathogenesis of Acanthamoeba keratitis: effect of keratectomy in superficial keratitis

Author and Co-authors: AQUINO, N.L., CAMPOS, M. S. Q., GATTI, í. M. V., FREITAS, D.,

Purpose: To evaluate the mechanism of superficial keratitis by the therapeutic response to keratectomy and the presence of Acanthamoeba cysts besides to the corneal surface.

Methods: The study is characterized by a clinical, longitudinal and prospective trial, in which the presence of Acanthamoeba cysts in the cornea will be evaluated, by means of confocal microscopy, after keratectomy and washing of the corneal surface, on the seventh day and on the thirtieth day, after the procedure, in patients who present only superficial cysts and who are part of the DEOC outpatient clinic. In addition, the presence of cysts in the nasal cavity, tear and bulbar conjunctiva of these patients will be investigated by means of swab culture and tear culture, comparing them to a control group that will be formed by patients from the DEOC outpatient clinic, without diagnosis of Acanthamoeba keratitis.

Results: In our study, so far, of the 10 patients included, 3 did not present cysts on confocal microscopy after 7 days of keratectomy and 7 presented cysts on the method. In the Confocal evaluation 30 days after the procedure, all 8 patients who returned for follow-up at the DEOC outpatient clinic had cysts and 2 patients did not return to the outpatient clinic. In addition, of the 4 patients who underwent bulbar conjunctival swab culture, all had negative cultures and nasal swab collection had not yet started.

Conclusion: According to the data analyzed so far, keratectomy has not been shown to be an effective method in the adjuvant treatment of superficial Acanthamoeba keratitis, with recurrence to Confocal in all patients evaluated after 30 days. The data collected so far are not sufficient to assess the presence of protozoan cysts in other locations, besides the cornea, but they may help to explain the recurrence after keratectomy in these cases of superficial keratitis.

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Deadline: 11/2022

Keywords: Acanthamoeba, Keratectomy, treatment;

FORMAT:

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Poster guidelines:
90cm x 120cm

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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>103. FIRST (PRESENTING) AUTHOR (REQUIRED): Name: Larissa Fagundes Pinto - PG1 e-mail: larifp1510@gmail.com</p> <p>Advisor: Denise Freitas</p> <p>CEP Number: 0572/2022</p>
<p>3. THEME: (REQUIRED) Check one:</p> <p>INFECCION</p>	<p>5. ABSTRACT (REQUIRED): Title: In vitro AND in vivo EVALUATION OF INFLAMMATORY AND HUMORAL IMMUNE RESPONSE IN PATIENTS DIAGNOSED WITH Acanthamoeba KERATITIS</p> <p>Author and Co-authors: Larissa Fagundes Pinto¹, Mylena Cristina de Souza Barsch¹, Niels Olsen Saraiva Câmara², Denise de Freitas¹ ¹Escola Paulista de Medicina, Hospital São Paulo, Federal University of São Paulo, São Paulo, SP, Brazil ? UNIFESP ²Institute of Biomedical Sciences</p> <p>Purpose: to evaluate in vivo the activated and developed inflammatory responses during the course of Acanthamoeba keratitis (AK), including the production of IgA. Also, to investigate in vitro the response and activation of innate immunity inflammatory cells when challenged with different Acanthamoeba spp. isolates.</p> <p>Methods: Twenty-five healthy donors and Twenty-five patients diagnosed with AK will be recruited. Biological fluids such as blood and tears will be collected from participants. Peripheral blood will be obtained by venipuncture in a vacuum collection tube containing EDTA as an anticoagulant. Tears will be collected only from the affected eye with microcapillaries, being sampled at eight different times within a period of six months. In tears, the levels of lacrimal secretory cytokines and IgA will be evaluated by Luminex multiplex immunoassay and enzyme-linked immunosorbent assay (ELISA), respectively. Inflammatory cells (neutrophils, macrophages, and dendritic cells) will be obtained from venous blood in vitro, which will be challenged with different Acanthamoeba spp. isolates, including A. polyphaga (ATCC 30461), A. castellanii (ATCC 30010), and clinical isolate obtained from patient with active AK. In vitro, the infection and survival rate of inflammatory cells and Acanthamoeba isolates will be evaluated, as well as the levels of nitric oxide produced by macrophages, myeloperoxidase and matrix metalloproteinase-9 produced by neutrophils, and cytokines produced by inflammatory cells through the ELISA method. Sanger sequencing method will be performed to identify clinical isolates of Acanthamoeba spp. For all statistical analyzes, a significance level of 5% will be considered.</p> <p>Results: To be concluded.</p> <p>Conclusion: To be concluded.</p> <p>Keywords: Acanthamoeba, keratitis, phagocytes, immunoglobulins, inflammation, cytokines.</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: 11/2022</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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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.

(LA) LABORATORY

104. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Stefano Neto Jai Hyun Choi - PG1

e-mail: stechoi91@hotmail.com

Advisor: Caio Regatieri

CEP Number: Declaração de Responsabilidade CEP

3. THEME: (REQUIRED) Check one:

IMAGING

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Deadline: 11/2022

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Title
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Purpose
Methods
Results,
Conclusion
Keywords

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Teleophthalmology Jurisprudence

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

Purpose: To present the current legal situation of Telemedicine/Teleophthalmology in Brazil.

Methods: Bibliographic research was done on the Federal Medicine Counsel (CFM) website and the Federal Government website. Nine documents were selected and analyzed, organized into five Resolutions of CFM, one Letter of CFM, two Federal Laws, and one Ordinance of the Health Ministry of Brazil.

Results: In Brazilian Legislation, law number 13.979 put into effect the measures to face the Covid-19 pandemic. Law number 13.989 validated the Telemedicine application during the pandemic. The CFM Resolutions (n. 1.643/2002, n. 2.227/2018, n. 2.228/2019, n.2.299/2021, and n. 2.314/2022) defined Telemedicine, its characteristics, and application according to the technologies used between 2002 to 2022. The Letter of CFM N. 1.756/2020 is the document that improved and recognized the Telemedicine Ethic, complementing the CFM Resolution n. 1.643/2002. One day after this recognition, the Health Ministry of Brazil regulated and operationalized Telemedicine during the pandemic by the Ordinance n.467.

Conclusion: Telemedicine in Brazil has a law base favorable to its expansion, although it is in the initial phase in Brazil. In some regions of Brazil, it is possible to see the application of Telemedicine efficiently, including Ophthalmology.

Keywords: Telemedicine; Teleophthalmology; Telehealth; Jurisprudence.

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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.

(LA) LABORATORY

105. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Glauco Sérgio Avelino de Aquino - R2

e-mail: glauco.aquino@uol.com.br

CEP Number: 0611P/2021

3. THEME: (REQUIRED) Check one:

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Deadline: 11/2022

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Abstract should contain:

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

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: EVALUATION OF THE PRESENCE OF Acanthamoeba IN SCLERAL CONTACT LENSES, LENS CASES AND PLUNGERS, POTENTIAL CONTAMINATION SOURCES OF PATIENTS WITH Acanthamoeba KERATITIS.

Author and Co-authors: Glauco Sérgio Avelino de Aquino, Larissa Fagundes Pinto, Maria Cecília Zorat Yu, Viviane Peracini Sant'Ana, Ana Luisa Hofling-Lima, Denise de Freitas

Purpose: Acanthamoeba is a rare keratitis pathogen, which can lead to severe corneal infection. Whilst it is mainly associated with soft contact lens use with no compliance, recently several cases of Acanthamoeba keratitis (AK) in sclera lens wearers were reported. There is little worldwide in the literature about the interaction of amoebae with scleral contact lenses (ScCL) and its presence in the materials involved in daily lens storage and handling. The purpose of the present study is to investigate the positivity of Acanthamoeba in scleral lenses, lens cases, and plungers, aiming to determine whether this would be the main source of contamination.

Methods: ScCL from patients diagnosed with AK were washed with sterile phosphate-buffered saline (PBS) and went to an orbital shaker, aiming to reduce adherence of the amoebae. This suspension and the ScCL were deposited with optical zone upwards onto 1.5% non-nutrient agar with a drop of heat-inactivated Escherichia coli (DH5a). The lens cases were washed with PBS and placed in agar, and if there was liquid stored in the case, the liquid was cultured too. The samples were incubated at 28°C to 30°C for 20 days and the cultures were followed with optical microscopy. All processes were carried out on sterile conditions.

Results: in progress

Conclusion: in progress

Keywords: Acanthamoeba keratitis, scleral contact lenses, lens cases, plungers, culture.

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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.

(LA) LABORATORY

106. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Mylena Cristina de Souza Barsch - PIBIC

e-mail: mylena.barsch@hotmail.com

Advisor: Denise Freitas

CEP Number: 0572/2022

3. THEME: (REQUIRED) Check one:

INFECCION

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Scientific Section Descriptions (two-letter code):

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Deadline: 11/2022

FORMAT:

Abstract should contain:

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

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: INTERACTION OF Acanthamoeba spp. CYSTS AND TROPHOZOITES WITH HUMAN MACROPHAGES

Author and Co-authors: Mylena Cristina de Souza Barsch¹, Larissa Fagundes Pinto¹, Niels Olsen Saraiva Câmara², Denise de Freitas¹ ¹Escola Paulista de Medicina, Hospital São Paulo, Federal University of São Paulo, São Paulo, SP, Brazil ? ²UNIFESP ²Institute of Biomedical Sciences

Purpose: to investigate the role of activated human macrophages when challenged with different isolates belonging to the genus Acanthamoeba spp. to understand and elucidate the role and importance of macrophages in the pathophysiology of Acanthamoeba keratitis (AK).

Methods: Twenty-five healthy donors and Twenty-five patients diagnosed with AK will be recruited. Peripheral blood will be obtained by venipuncture in a vacuum collection tube containing EDTA as an anticoagulant from participants. Monocytes will be obtained from venous blood and differentiated into macrophages in vitro, which will be challenged with different Acanthamoeba spp. isolates, including A. polyphaga (ATCC 30461), A. castellanii (ATCC 30010), and clinical isolate obtained from patient with active AK. The infection and survival rate of macrophages and Acanthamoeba isolates will be evaluated, as well as the levels of nitric oxide produced by these macrophages through the Griess reagent. Sanger sequencing method will be performed to identify clinical isolates of Acanthamoeba spp. For all statistical analyzes, a significance level of 5% will be considered.

Results: To be concluded.

Conclusion: To be concluded.

Keywords: Acanthamoeba, keratitis, ocular surface defenses, human macrophages, eye.

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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.

(LA) LABORATORY

107. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Vitoria Regina da Silva Gomes - PIBIC

e-mail: vitoriarsg.biomed@outlook.com

Advisor: José Álvaro Pereira Gomes

CEP Number: 110647/2022

3. THEME: (REQUIRED) Check one:

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Abstract should contain:

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

Poster guidelines:
90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: EVALUATION OF THE POTENTIAL OF ACTIVATED CHARCOAL AS AN COADJUVANT TREATMENT OF BACTERIAL CORNEAL ULCER, "IN VITRO" STUDY

Author and Co-authors: Vitoria Regina da Silva Gomes Priscila Cardoso Cristovam José Álvares Pereira Gomes

Purpose: To evaluate the potential of activated charcoal as an adjunctive treatment for bacterial corneal ulcer.

Methods: Corneal epithelial cells will be obtained from donor corneoscleral buds, which will be plated and cultured in 6-well plates until 95% confluence is achieved. After confluence is achieved, these cells will be trypsinized, plated, and cultured in 96-well plates for the experiments to be conducted. Firstly, it will be investigated if the activated charcoal has a cytotoxic effect on corneal epithelial cells, for this, these cells will be exposed to different concentrations of activated charcoal, in which the viability of these cells will be evaluated using the MTT test and TUNEL test (cell apoptosis). Subsequently, the *P. aeruginosa* strains will be cultivated in blood agar and exposed to different concentrations of activated carbon in order to determine the best dose response and the minimum amount of activated carbon necessary for toxin adsorption, in which the antibiotic Ceftadizime will also be added. For this analysis the quantitative chromogenic assay will be applied, and readings will be taken using a portable testing system (PTS). Finally, a biological dressing will be prepared by using amniotic membrane together with activated carbon in different concentrations in order to evaluate a possible treatment for corneal ulcer, and this application will be analyzed via endotoxin dosage assay. The statistical analysis of these data will be conducted via ONE-WAY ANOVA using the SigmaStat software and a 5% significance level.

Results: To be concluded

Conclusion: To be concluded

Keywords: Corneal Ulcer; Activated Charcoal; Endotoxins; Amniotic Membrane, biological dressing.

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(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS

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Abstract should contain:

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

Poster guidelines:

90cm x 120cm

108. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Andre Hiroshi Bando - Fellow

e-mail: andre.bando@unifesp.br

CEP Number: 1528.0055.12/2017

5. ABSTRACT (REQUIRED):

Title: Long-term visual acuity results from cataract surgery and its association with self-reported visual function: Catquest applicability

Author and Co-authors: Andre Hiroshi Bando, Koiti Uchida Hamada, Vinicius Pereira Leite Nakamura, Ricardo Y. Abe, Pedro Vanalle Ferrari, Bruno Torres Herrerias, Flavio Eduardo Hirai, Carolina P. B. Gracitelli

Purpose: This study aimed to determine the association of the long-term refractive outcomes of cataract surgery with self-reported visual function obtained using Catquest-9SF.

Methods: Patients recruited from the cataract outpatient clinic of VER + Oftalmologia underwent a complete ophthalmologic examination. Patients who were diagnosed with cataract with indications for phacoemulsification and intraocular lens implantation received the Catquest-9SF questionnaire before and after surgery at 30 days and 1 year.

Results: A total of 133 patients were recruited, but 32 patients were lost to follow-up, finally, data from 101 patients (48 men, 53 women) were analyzed. The crude variance explained by the data was 69.9%, and the unexplained variance in the first contrast was 2.39 eigenvalues (>2), thus, these results are different from those expected from random data. The people separation index was 2.95 (>2), and the people trust value was 0.9 (>0.8). These indices were evaluated in the assessment of skill levels. Visual acuity was the main variable that correlated with the Catquest score

Conclusion: The Catquest-9SF translated into Portuguese proved to be a one-dimensional and psychometrically valid tool to assess visual dysfunction in patients with cataract, and it is successful in objectively quantifying improvements after surgery. The results of this tool could be predictive and concordant of visual acuity improvement.

Keywords: Catquest; Catquest-9sf; Cataract; Visual function

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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.

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Results,
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Keywords

Poster guidelines:
90cm x 120cm

109. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Lucas Henrique Pereira - R1

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CEP Number: -

5. ABSTRACT (REQUIRED):

Title: Electrophysiological findings in a traumatic optic neuropathy after blunt ocular trauma: a case report

Author and Co-authors: Author: Lucas Henrique Pereira Co-authors: Licia Vago Matieli, Paula Yuri Sacai, Solange Rios Salomão, Adriana Berezovsky

Purpose: To report a case of traumatic optic neuropathy after blunt ocular trauma and its electrophysiological findings during the acute phase and follow up.

Methods: A 20-year-old man was evaluated with pain and loss of vision in the right eye after a blunt ocular trauma. Visual acuity was no light perception in the right eye and 0.00 logMAR (20/ 20) in the left eye. Slit lamp examination of the right eye revealed presence of vitreous and blood in the anterior chamber, dyscoria with superior iridectomy, posterior subcapsular lens opacity and subluxation of the lens. Fundus examination showed medium opacity, normal colored optic disc, attached retina and a diffuse retinal pallor in the right eye and normal aspect in the left eye. Full-field electroretinography (ERG) showed reduced amplitudes for both rods (96%) and cones (71%) in the affected eye compared with the fellow eye. Transient pattern-reversal visually evoked potentials (VEPs) were non-recordable and flash VEPs showed reduced amplitudes in the right eye. Both ERG and VEPs were within normal limits in the fellow eye.

Results: The initial management was conservative, with periodic clinical evaluation and investigation with ancillary tests. Head and orbit nuclear magnetic resonance demonstrated thickening and restriction of diffusion in the intraorbital segment of the right optic nerve. No vascular filling changes were found in the fluorescein angiography. Ten weeks after the trauma the clinical exam of the right eye evidenced maintenance of no light perception and the funduscopy showed a pallor optic disc with associated choroidal tear, suggesting the diagnosis of traumatic optic neuropathy.

Conclusion: in this young man the diagnosis of traumatic optic neuropathy was indicated by gathering the history of blunt ocular trauma, evidence of neuropathy due to a profound loss of vision, alterations in electrophysiological exams and late development of optic disc pallor in funduscopy. In this particular case, visual electrophysiological assessment in the acute phase has helped to better understand the evolution of this ocular neuropathy.

Keywords: Traumatic optic neuropathy. Ocular trauma. Electroretinography. Visually Evoked Potentials

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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.

(TR) TRAUMA

110. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 4038000

3. THEME: (REQUIRED) Check one:

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90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: PARTIAL TRAUMATIC OPTIC NERVE HEAD AVULSION: AN UNUSUAL PRESENTATION

Author and Co-authors: Pedro Leite Costa Franco, Lucas Zago Ribeiro, Dante Akira Kondo Kuroiwa, Caio Vinicius Saito Regatieri

Purpose: To report an uncommon presentation of an already rare form of traumatic optic neuropathy, a partial traumatic optic nerve head avulsion secondary to blunt ocular trauma.

Methods: Review of medical records.

Results: A 16-year-old male patient with no past medical history presented to the ophthalmologic emergency room complaining of sudden unilateral vision loss in the left eye, secondary to blunt eye trauma from a kicked ball while playing soccer the same day. On admission, his best corrected visual acuity (BCVA) was 20/20 in the right eye (OD) and hand motion in the left eye (OS), with relative afferent pupillary defect. Fundus examination of the OS revealed discrete vitreous hemorrhage, a partial optic nerve head avulsion, and peripapillary intraretinal hemorrhages. Optic Coherence Tomography (OCT) showed subretinal fluid in the temporal peripapillary area, and a deep cavity compatible to the partial avulsion, alongside an expected lesion of the lamina cribrosa. However, Brain Magnetic Resonance Imaging (MRI) of the orbits showed no optic nerve abnormality. After one year of follow-up, the BCVA of the OS improved to 20/100, and the fundus exam demonstrated temporal pallor of the optic disc with a central round-gray defect, similar to an acquired optic disc pit, with no major retinal repercussions. Further OCT imaging revealed proliferation of fibrous tissue in the temporal quadrant of the optic disc.

Conclusion: Optic nerve head avulsion is a rare, albeit severe form of anterior traumatic neuropathy, frequently generating an unfortunate visual outcome. Partial avulsions are even more infrequent and can pose a diagnostic challenge, specially under unclear media, adding to the fact that often Ultrasound, MRI and CT scans may fail to show gross abnormalities. Furthermore, the chronic phase could mimic other optic disc pathologies, such as optic disc pit. For this reason, high index of suspicion and thorough examination are the main resources associated with early diagnosis and proper management. Financial support: None.

Keywords: Optic nerve avulsion; traumatic neuropathy; blunt eye trauma.

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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.

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111. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Juan Fulgencio Welko Mendoza - R3

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CEP Number: 01907918.4.0000.5505

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Methods
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Keywords

Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Epidemiology of penetrating ocular trauma in the elderly ? a Brazilian experience

Author and Co-authors: Mendoza, JFW, Itikawa ACY, Zago, Nakayama LF, Bergamo, VC, Ribeiro, LZ, Ambrogini, NSM

Purpose: This study reveals epidemiological data in penetrating ocular trauma among elderly patients from an emergency department at a tertiary Brazilian hospital from January 2015 to June 2020.

Methods: retrospective review of data from patient records from the ophthalmological emergency department at Sao Paulo Hospital, Federal University of Sao Paulo (Brazil).. Patients with a history of penetrating ocular trauma with more than 60 years old were included. Birmingham Eye Trauma Terminology System (BETT) classification was used.. (Kuhn et al. 2004). Data underwent descriptive analysis. Measures of central tendency and dispersion were considered quantitative variables, while for qualitative variables, proportions calculation was considered.

Results: The study analyzed 406 patients with record of ocular trauma. Data analysis will include demographics (age, gender and race), mechanism of injury, trauma classification, visual acuity, and outcome.

Conclusion: Further results in progress.

Keywords: trauma; elderly

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(TU) TUMORS AND PATHOLOGY

112. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 4021051

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5. ABSTRACT (REQUIRED):

Title: A SURVEY OF SYNDROMIC CASES FORWARDED TO A REFERENCE SERVICE IN OPHTHALMIC ONCOLOGY: PROFILE AND FREQUENCY

Author and Co-authors: Melina Correia Morales, Arthur Gustavo Fernandes and Débora Yoshimatsu Izelli

Purpose: To report the frequency and profile of patients with syndromic diseases referred to the Ophthalmic Oncology sector of the Department of Ophthalmology and Visual Sciences at the Federal University of São Paulo

Methods: A retrospective study will be carried out based on a review of medical records from the Department of Ophthalmology and Visual Sciences at the Federal University of São Paulo. Participants of the study will be patients with the syndromic conditions listed in the inclusion criteria based on access to their electronic medical records.

Results: A total of 41 patients who arrived at the ophthalmic oncology sector with diagnosis of syndromes were included in the present study: xeroderma pigmentosum (78.05%), Von Hippel Lindau (12.20%), Goldenhar Syndrome (4.88%) and neurofibromatosis type 1 (4.88%). There was a predominance in females in xeroderma pigmentosum (59.38%) and in males in Von Hippel Lindau (60.00%), the average age at admission consultation was 27.28±15.65 (27.5) in xeroderma pigmentosum, 29.80±12.46 (31) in Von Hippel Lindau, 52.00±50.91 (52) in Goldenhar Syndrome and 28.00±8.48 (28) in Neurofibromatosis type 1. White race was more prevalent in xeroderma pigmentosum (71.88%) and brown race in Von Hippel Lindau (60.00%). The previous years were the ones with the highest prevalence of attendance in all cases. Family history was positive in half of the cases of xeroderma pigmentosum (parents 6.25%, siblings 34.38% and consanguinity 9.38%) and positive in all cases of neurofibromatosis. The most common clinical findings in xeroderma pigmentosum were ocular surface squamous neoplasm (53.13%) followed by pannus (9.38%), papilloma (6.25%) and melanosis (3.13%), in Von Hippel Lindau were retinal capillary hemangioblastomas (100%), in Goldenhar syndrome were epibulbar dermoids (100%) and in neurofibromatosis type 1 were neurofibromas (100%)

Conclusion: The study concluded that family history had a considerable prevalence in cases of xeroderma pigmentosum, Von Hippel Lindau and Neurofibromatosis type 1 with implications for the clinical course, severity and outcome of the condition, with greater frequency of presentation for assistance in previous years showing loss of long-term follow-up and deficit of genetic counseling

Keywords: Xeroderma pigmentosum; neurofibromatosis; von hippel lindau; goldenhar syndrome

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(TU) TUMORS AND PATHOLOGY

113. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Tiago Almeida Carvalho - Fellow

e-mail: timed9@gmail.com

CEP Number: 13098342

3. THEME: (REQUIRED) Check one:

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5. ABSTRACT (REQUIRED):

Title: Evaluation of patient adherence to the treatment of squamous neoplasm of the ocular surface with chemotherapeutic eye drops

Author and Co-authors: Carvalho TA Resende MIL Fernandes AG Belfort RN Morales MC

Purpose: Objective: The use of chemotherapeutic eye drops has become a frequent and effective practice for the treatment of squamous neoplasms of the ocular surface (OSSN). Among the therapeutic options, 5-Fluoracil 0.5%, Mitomycin 0.02-0.04%, and Interferon- α 2b are the most commonly used drugs. Not infrequently, however, some patients have difficulties in adhering to these therapeutic methods due to different reasons such as lack of budget, little knowledge of the severity of the case, adverse effects of medications or even carelessness of caregivers. This study aimed to investigate the adherence of patients with OSSN to treatment and to identify factors associated with it.

Methods: Methods: Patients from the Ocular Oncology sector of the Department of Ophthalmology and Visual Sciences at UNIFESP, newly diagnosed with OSSN were invited to participate in the study. After 2 weeks of treatment, the participants were required to answer the ?Morisky Medication Adherence Questionnaire (MMAS-8)? questionnaire to evaluate adherence to treatment. Patients with scores above XX on the MMAS-8 were considered non-adherents. In addition, data were collected on possible risk factors associated with non-adherence, such as gender, age, race, sun exposure, smoking, systemic diseases, contact with petroleum products and financial difficulties.

Results: : A total of 30 participants (70.0% men) aged between 33 and 85 years (mean: 64.76 ± 13.04 , median: 64 years) were included in the study. The mean value of the MMAS-8 score was 6.49 ± 1.53 , ranging from 3.5 to 8.0, with a median of 7.0. According to the classification criteria, 10 participants (33.33%) were classified as non-adherent to treatment. There was a statistically significant association between adherence and abstaining from essential items ($p=0.015$) so that 50% of non-adherent patients referred abstaining from essential items versus 10% of adherents.

Conclusion: Conclusion: One third of the participants did not adhere to the treatment properly. Abstaining from essential items was significantly more frequent in these cases, indicating a relationship between income and adherence to treatment.

Keywords: Ophthalmology, Oncology, Adhesion, Neoplasms

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(TU) TUMORS AND PATHOLOGY

114. FIRST (PRESENTING) AUTHOR (REQUIRED):

Name: Gabriela Carneiro Teixeira - MP

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CEP Number: 5.026.019

3. THEME: (REQUIRED) Check one:

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Poster guidelines:

90cm x 120cm

5. ABSTRACT (REQUIRED):

Title: Efficacy of topical 0.5% 5-fluorouracil for the treatment of ocular surface squamous neoplasia.

Author and Co-authors: Teixeira GC, Morales MC, Fernandes AG

Purpose: Ocular surface squamous neoplasia (OSSN) is the most common non-pigmented malignant tumor of the ocular surface worldwide. We aimed to evaluate the efficacy of the topical 0.5% 5-fluorouracil (5FU) eye drop for OSSN treatment.

Methods: Prospective study conducted at the Ocular Oncology Ambulatory at the Ophthalmology and Visual Sciences Department from the Universidade Federal de São Paulo/Escola Paulista de Medicina. Patients newly diagnosed with OSSN and without history of previous treatments will be recruited. The topical 0.5% 5FU will be prescribed to be used 4 times daily for 10 days, followed by a 3-week pause. Anterior segment photography will be taken at baseline and during follow-up appointments. In case of incomplete response, up to 3 courses of medication can be prescribed. The treatment may be suspended in case of documented growth of the lesion. Cases with no-adherence to treatment evaluated by the Morisky Medication Adherence Questionnaire will be excluded from the analysis.

Results: The preliminary data include 11 patients (mean age: 69.84 years old, 72.73% males). Among the total patients treated with 0.5% 5FU, 81.82% (95%CI: 42.00 ? 96.55%) were considered successfully treated after a mean of 2.11±0.60 courses of treatment. Among the cases of treatment failure, there were 2 patients that showed no regression of the lesion after 3 courses of 0.5% 5FU: one of them was submitted to surgical excision and the other had the treatment switched to interferon alpha 2b. There were no statistically significant effects of sex, age or lesion location in the treatment outcome ($p > 0.05$).

Conclusion: The partial results indicated that the 0.5% 5FU is efficient in the treatment of OSSN. The study is in progress and we aim to increase the sample size in order to point the efficiency of topical 0.5% 5FU.

Keywords: Topical, Chemotherapy, Squamous, Neoplasia, 5-fluorouracil

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

Name: Pedro Antonio Nogueira Filho - PG0
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Advisor: Mauro Campos

CEP Number: 4.477.554

5. ABSTRACT (REQUIRED):

Title: Epidemiological statistical analysis comparing public and private care at the Ophthalmology Emergency Room in the city of São Paulo, involving Hospital São Paulo x H.Olhos.

Author and Co-authors: Pedro Antonio Nogueira Filho, Mauro Silveira De Queiroz Campos

Purpose: Comparative epidemiological profile of two ophthalmology emergency rooms in the city of São Paulo, comparing public versus private care.

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.

Results: In the process of capturing data referring to consultations at the Ophthalmological Emergency Room of Hospital São Paulo. The private epidemiological statistical analysis will have sampling from the electronic medical records of 500,000 patients evaluated in the Ophthalmological Emergency Room of Grupo H. Olhos from 2011 to 2019 and proportional to the same period at Hospital São Paulo.

Conclusion: This initiative stands out basically because it is concerned with comparatively analyzing the data stored from the ophthalmology emergency care at Hospital São Paulo x H. Olhos, medical institutions that offer outstanding ophthalmological care in the city of São Paulo and Brazil. Such a sample can be used as a reference for further studies, prevention of pathologies and other conditions that compromise the eyes and vision, as well as future interpretation and structuring regarding ophthalmology emergencies and the respective needs presented in the population demographic area in question. As a single consequence, the improvement in the planning of actions to prevent and combat pathologies associated with the eyes and vision and consequent improvement in the population's quality of life.

Keywords: Ophthalmology, Emergency Room, Epidemiological Profile, Statistical Analysis, Public Service, Private Service.

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Keywords

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Advisor: Denise Freitas

CEP Number: 1.480.825

5. ABSTRACT (REQUIRED):

Title: PROFILE OF STRICTO SENSU GRADUATES IN OPHTHALMOLOGY AND UNIFESP VISUAL SCIENCES

Author and Co-authors: Rosangela Demetrio, Denise de Freitas, Caio Regatieri

Purpose: Draw a profile of the Graduate Program in Ophthalmology and Visual Sciences at Escola Paulista de Medicina / Universidade Federal de São Paulo, by mapping the areas of expertise in research of alumni. Define the area of greatest scientific production for each alumni.

Methods: Obtain authorizations for access to information The study meets the standards of ethics in research with human beings, obtaining approval from the Research Ethics Committee of the Federal University of São Paulo (UNIFESP), under opinion No. 1,480,825. Specify study participants Graduates of the Graduate Program in Ophthalmology and Visual Sciences at Escola Paulista de Medicina / UNIFESP, all students trained in the Academic Master's, Academic Doctorate and Post-Doctorate courses were selected. The population to be investigated is 523 graduates, being 174 individuals graduated in the Academic Master's Degree, 334 graduated in the Academic Doctorate and 15 in the Post-Doctorate. Research steps Some important steps in this research can be considered: 1. specification of the population to be researched (step 1), 2. search for existing data in the PPG database (step 2), 3. search for titles published by the graduate, as the first author (step 3), 4. identification of the research line to which they refer, using the descriptors (step 4), 5. analysis of the collected data (step 5) and the 6. description of the results (step 6).

Results: We have no results yet

Conclusion: The conclusion of this study will point out which is the line of research of the Graduate Program in Ophthalmology and Visual Sciences at Unifesp (PPG) that most contributes to science, through the scientific production of its graduates, thus defining a profile of the PPG. The result will also be a general database with all the publications of these graduates, their descriptors and lines of research to which they refer, among other data.

Keywords: Graduate; Alumni; Profile

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Keywords

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

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5. ABSTRACT (REQUIRED):

Title: São Paulo Hospital's Ophthalmology Inpatient Consults

Author and Co-authors: Radaeli, José Rodolfo Mariani, Ikeda, Mariana Chiba, Carvalho, Julia Jiquilin, Bufarah, Guilherme Havir

Purpose: Ophthalmology consultation is commonly requested by non-ophthalmologists, once they lack familiarity of ophthalmic symptoms, besides, ophthalmologic findings can change management. This study aims to identify the characteristics of inpatient consultations performed at São Paulo Hospital's Ophthalmology Department.

Methods: This is a cross sectional retrospective study regarding all inpatient consultation requested to the Ophthalmology Department from September 22th to October 10th 2021. Information regarding patient demographics, the referring unit, reason for referral and the diagnosis were recorded. Ophthalmologic examination results and intervention were also noted. All patients were assessed by the ophthalmology on-call team for that day and examined within 48 hours of the request for consultation.

Results: There were a total of 232 referred consults, 212 completed. 20 of them were not accomplished: one patient evaded the hospital, one was dead at the time of examination, 6 of them didn't come to the evaluation and 12 of them were denied by our team. Among the 12 denied, 6 were asked repeatedly and 6 were not urgent. More than half (121 consults or 52%) of them were referred by the internal medicine services, followed by pediatricians (44), neurologists (26), general surgeons (20) and neurosurgeons (12) (Figure 1). 146 (63%) patients were hospitalized and 86 (37%) were from other emergency departments. 11 patients were unconscious and 12 of them suffered from head or face trauma or burn.

Conclusion: There are not many studies concerning ophthalmologic inconsults. Nevertheless, our findings were compatible with Grewal et al, Carter et al, Tajunisah et al and Bala et al (1, 2, 3, 4) which also found out that the internal medicine service were the top one team to ask for ophthalmology inconsults (except for Bala et al which was Neurosurgery), main complaint was decreased visual acuity, ocular findings were mostly surface related and most of the patients had normal ophthalmologic examinations. Inconsults volume in this study was also surprising: Grewal had an average of 5.01 inconsults per week, Bala had 5.0, Carter had 4.66, Tajunisah had 12.0 but for our service we were demanded a mean of 33.14 inconsults per week. There was a range of 0-11 inconsults per day. Interestingly, there was an average of 2.94 consults per day asked on weekends and holidays (26 days) and 5.59 on weekdays (32 days), almost double compared to weekends. This study may be useful for the planning and management of consultation services in residency training programs and for tertiary care-services.

Keywords: Inpatient Consults; Ophthalmology; ophthalmic symptoms

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(PL) OCULOPLASTICS SURGERY

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Methods
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5. ABSTRACT (REQUIRED):

Title: An atypical eyelid malignancy

Author and Co-authors: Ugor Tomaz Fernandes, Thais Penna Souza, Julia Harumi Iwakura, Irineu Kenji Ogoshi Junior and Tammy Hentona Osaki

Purpose: To present an atypical form of eyelid Merkel cell carcinoma. This type of skin cancer is rare and aggressive and originates from epithelial and neuroendocrine cells. It typically presents as a violaceous mass with telangiectasias that rapidly increases in size. Only 2.5% of the cases are located in the eyelids

Methods: The patient medical record was reviewed. The patient authorized the presentation of the case

Results: An 81-year-old Caucasian woman from São Paulo presented to the oculoplastic division at Hospital São Paulo with a history of a painless right lower eyelid lesion, started 3 months before, with progressive growth and ulceration. In her past medical history, she reported arterial hypertension, non-dialytic chronic kidney disease, aortic stenosis and mitral valve disease. She had cataract surgery in both eyes approximately 10 years prior to evaluation. Her visual acuity measured by Snellen chart was 20/400 in the right eye and 20/40 in the left eye. In the slit-lamp examination of the right eye, there was an extensive infiltrative lesion in the lower eyelid with ulceration causing mechanical ectropion and conjunctival hyperemia. The exam of the left eye was unremarkable. The hypothesis of a malignant eyelid lesion was made, mainly basal cell carcinoma followed by squamous cell carcinoma and sebaceous gland carcinoma. Resection with margins and intraoperative frozen margin examination with palpebral reconstruction by Hughes technique was conducted with a good evolution in the post-operative follow-up. The histopathology report revealed a Merkel cell carcinoma with free margins and compatible immunohistochemical study

Conclusion: We report the case of a Merkel cell carcinoma, an uncommon and highly aggressive tumor that carries a poor prognosis. There are few reports of eyelid Merkel cell carcinoma in the literature, and most of them are located in the upper eyelid, as opposed to this case. Immunohistochemical analysis was important to help in the diagnosis

Keywords: Eyelid tumor, Merkel cell carcinoma, Oculoplastics

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(PL) OCULOPLASTICS SURGERY

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Purpose
Methods
Results,
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Keywords

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5. ABSTRACT (REQUIRED):

Title: Assessment of blepharoptosis following corneal transplantation

Author and Co-authors: Frederico do Carmo Novaes, Mariana Araújo Dias, Maria Gabriela de Melo Gusmão, Flavio Hirai, Midori Hentona Osaki, Tammy Hentona Osaki

Purpose: The primary objective of this study is to assess the incidence of blepharoptosis in patients who underwent corneal transplantation. The secondary objective is to study the eyelid ptosis features and clinical profile of these patients.

Methods: All patients who underwent corneal transplantation from January to December 2021 at the Department of Ophthalmology of Hospital São Paulo had their electronic medical records reviewed in order to investigate the incidence of patients who developed blepharoptosis following corneal transplantation. Demographic and outcome measures included: age, gender, corneal condition, and eyelid ptosis features (palpebral fissure distance, marginal reflex distance ? 1, levator function and presence of Bell sign).

Results: A total of 277 corneal transplants were performed at the Ophthalmology Department of Hospital São Paulo in 2021. Mean age was 53.9 years (range: 1-93 years). The majority of patients who underwent corneal transplantation in 2021 were female (51.2%). No case of blepharoptosis was reported in the charts of patients undergoing corneal transplantation in 2021.

Conclusion: Although blepharoptosis is relatively common following ocular surgeries, there was no description of blepharoptosis following corneal transplant in the revised medical records during the year of 2021. Some factors could explain this fact, such as: blepharoptosis not noticed by the examining physician in the postoperative period, mild ptosis not leading to clinical complaints, the retrospective nature and the short-term follow-up of this study.

Keywords: eyelid ptosis, corneal transplantation, inflammation

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(PL) OCULOPLASTICS SURGERY

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Purpose
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Results,
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Keywords

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5. ABSTRACT (REQUIRED):

Title: Blepharoptosis after vitreoretinal procedures

Author and Co-authors: Gusmão, M. G. M, Dias, M. A, Novaes, F. C, Brant, R, Osaki M, Osaki,

Purpose: To analyze the incidence of blepharoptosis in patients who underwent vitreoretinal procedures at the Department of Ophthalmology and Visual Sciences, Federal University of São Paulo ? UNIFESP.

Methods: A retrospective study was performed to assess the medical records of patients who underwent vitreoretinal surgeries from January 1st 2021 to December 31th 2021 at the Federal University of São Paulo and investigate the incidence of blepharoptosis following these procedures. Analyzed data included: age, gender, retinal condition, type of retinal surgery, blepharoptosis and eyelid ptosis features (palpebral fissure distance, marginal reflex distance ? 1, levator function and presence of Bell sign).

Results: A total of 380 patients underwent vitreoretinal procedures during the studied period. Of the 380 patients, there were 265 (69,7%) males and 115 (30,3%) females, mean age was 55.7 years (7 ? 83 years). Retinal surgery was performed on 197 (51.8%) right eyes, 179 (47.1) left eyes and 4 (1.1%) patients had surgery in both eyes. There were 179 (46.6%) combined procedures, 114 (29.7%) silicone oil removal, 54 (14%) pars plana vitrectomy and 37 (9.7%) scleral buckles. The main retinal condition was rhegmatogenous retinal detachment (73.7%), followed by traction retinal detachment (8.6%). Only 1 (0.3%) patient (male, 55 years old) developed ipsilateral blepharoptosis after a pars plana vitrectomy with a lensectomy due to lens dislocation after a blunt eye trauma. The levator function was preserved (12mm), the marginal reflex distance-1 was 2mm, palpebral fissure distance was 7mm and Bell sign was present.

Conclusion: Eyelid drooping is relatively common following intraocular surgeries. 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 of ptosis observed in the present study.

Keywords: blephroptosis; retinal surgery procedures; inflammation

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121. FIRST (PRESENTING) AUTHOR (REQUIRED):

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CEP Number: 52823521.7.0000.5505

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5. ABSTRACT (REQUIRED):

Title: MODIFIED VAN MILLINGEN TECHNIQUE USING FIBRIN SEALANT TO MANAGE MAJOR TRICHIASIS

Author and Co-authors: Flavio A. Fowler, Lilian Ohkawara, Midori H. Osaki, Patricia Miyasato, and Tammy H. Osaki

Purpose: In the intermarginal split lamella with labial mucous membrane graft procedure (modified Van Millingen technique) to manage major trichiasis, the graft is usually sutured in the receptor bed using 6-0 polyglactin sutures. We aimed to report our results using a sutureless intermarginal split lamella with labial mucous membrane graft to manage major trichiasis.

Methods: This is a case series of patients who underwent sutureless intermarginal split lamella with labial mucous membrane graft using fibrin sealant (Tisseel, Baxter Healthcare Corp) between 2016 and 2021. Clinical data (age, gender, etiology of the trichiasis, improvement of symptoms, complications and follow-up period) were extracted from these patients charts.

Results: Fifteen consecutive eyelids from eleven patients underwent the procedure. Mean follow-up was 8.7 ± 3.3 months and main underlying diagnosis was chronic blepharitis (66.7%). All patients reported improvement of ocular symptoms after the procedure. Mucous membrane graft dehiscence was observed in one eyelid (6.7%) in the first postoperative day (patient reported eye rubbing).

Conclusion: The use of fibrin sealant showed to be a good alternative to conventional absorbable sutures in the modified Van Millingen technique to manage major trichiasis. Advantages include decreased postoperative discomfort and expedited operating time.

Keywords: fibrin sealant; labial mucous membrane; trichiasis

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122. FIRST (PRESENTING) AUTHOR (REQUIRED):

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3. THEME: (REQUIRED) Check one:

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5. ABSTRACT (REQUIRED):

Title: Blepharoptosis following anti-glaucomatous procedures

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

Purpose: To investigate the incidence of blepharoptosis in patients who underwent anti-glaucomatous surgical procedures at the Department of Ophthalmology and Visual Sciences, Federal University of São Paulo ? UNIFESP.

Methods: A retrospective study was performed to assess the medical records of patients who underwent anti-glaucomatous surgical procedures from January 1st 2021 to December 31st 2021 at the Federal University of São Paulo and investigate the incidence of blepharoptosis following these 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).

Results: Charts of 285 consecutive patients who underwent anti-glaucomatous surgery from January to December 2021, including 49 tubes implants and 236 trabeculectomies were retrospectively reviewed. When it concerns to gender, women were the majority (51%). Mean age was 58.4 years (24-91 years of age). Regarding race, 61% were caucasian, 17% brown skinned, 7% afrodescendant and 15% corresponded to other races. Types of glaucoma included: open angle primary glaucoma (70.8%), followed by closed angle primary glaucoma (25.2%), post traumatic glaucoma (2.5%) and steroids induced glaucoma (1.5%). Eight cases (2.1%) were reported with blepharoptosis following antiglaucomatous surgery, the majority (75%) after trabeculectomy. The levator function was preserved in all patients. The mean marginal reflex distance was 2 mm and mean palpebral fissure distance was 7 mm. Levator advancement was the most performed surgery to correct the eyelid ptosis.

Conclusion: Aponeurotic blepharoptosis following intraocular surgeries is not uncommon to be observed. 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: anti-glaucomatous surgery; eyelid ptosis; ocular inflammation

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123. FIRST (PRESENTING) AUTHOR (REQUIRED):

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5. ABSTRACT (REQUIRED):

Title: Analysis of intraocular pressure, optic disc and optic coherence tomography differences in blepharospasm and hemifacial spasm patients

Author and Co-authors: Tulio Loyola Figueiredo, MD, Gustavo David Ludwig, MD, Gustavo R. Gameiro, MD, Midori Hentona Osaki, MD and Tammy Hentona Osaki, MD, Advisor: Tammy Hentona Osaki, MD

Purpose: It has already been described the effect of eyelid closure on the intraocular pressure (IOP) measure. Patients suffering from essential Blepharospasm (EB) and Hemifacial Spasm (HFS) have increased frequency of eyelid closure and orbicularis oculi contractions. Possibly, glaucoma incidence is higher among these patients, however few studies have comprehensively investigated this association. The present study aims to investigate differences in IOP, optic disc, and optic coherence tomography (OCT) among HFS (affected and non-affected sides) and EB patients, compared to age-matched healthy subjects.

Methods: In this prospective comparative study, 10 EB / HFS patients and 10 age-matched healthy subjects were recruited. Standardized intraocular pressure measure, cup-to-disc ratio analysis, pachymetry, nerve fiber layer and ganglion cell layer using optic coherence tomography were assessed in the patient and control groups.

Results: In progress

Conclusion: In progress

Keywords: Blepharospasm; Hemifacial Spasm; Intraocular pressure; Glaucoma.

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