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22nd RESEARCH DAYS

Postgraduate Program in Ophthalmology & Visual Sciences

DECEMBER **10 - 11 , 2020**

Organization

Sponsor

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 **22nd Research Days | UNIFESP-EPM** will be held in São Paulo from December 10 to 11, 2020. Please visit our homepage http://www.oftalmounifesp.com.br/pg for the complete Scientific Program and additional information

PROGRAM AT A GLANCE

December 10, 2020 - Thursday

8:10-8:20 AM	**OPENING REMARKS**	**Ivan Maynart Tavares**
8:20-8:30 AM	**POSTGRADUATE PROGRAM**	**Augusto Paranhos Junior**
8:30-8:35 AM	**PROGRAM HEADLINES**	
8:40-9:40 AM	**PAPER PRESENTATION- SESSION 1**	**INFECTION** Moderators: Denise de Freitas, Ana Luisa Hofling Lima, Rubens Belfort Jr and Cristina Muccioli
9:40-10:10 AM	**INVITED LECTURE**	**Elazer Edelman, MD, PhD**
10:10-10:30 AM	**COFFEE BREAK**	
10:30-11:25 AM	**PAPER PRESENTATION - SESSION 2**	**IMAGING** Moderators: Ivan Maynart Tavares, Jose Alvaro Pereira Gomes, Lauro Augusto de Oliveira and Solange Rios Salomão
11:30-12:00 am	**POSTER SESSION 1**	**ANGIOGENESIS, CELL THERAPY and IMAGING**
12:00- 13:00 PM	**PAPER PRESENTATION - SESSION 3**	**IMAGING** Moderators: Augusto Paranhos Jr., Renato Ambrosio Jr. and Adriana Berezovsky

December 11, 2020 - Friday

8:10 – 9:00 AM	**PAPER PRESENTATION - SESSION 5**	**IMAGING** Moderators: Tiago Prata, Michel Farah, Mauro Campos and Norma Allemann
9:00 – 10:20 AM	**PAPER PRESENTATION - SESSION 6**	**INFLAMMATION** Moderators: Luciene Barbosa, Paulo Schor and Mauricio Maia
10:25-10:35 AM	**LECTURE**	**NOVARTIS®**
10:35-11:00 AM	**POSTER SESSION 2**	**IMAGING and INFECTION**
11:00-11:55 AM	**PAPER PRESENTATION - SESSION 7**	**INFLAMMATION AND CELL THERAPY** Moderators: Juliana Maria Ferraz Sallum, Caio Regatieri and Wallace Chamon
11:55-12:05 PM	**LECTURE**	**ROCHE®**
12:05-12:35 PM	**POSTER SESSION 3**	**INFLAMMATION**
12:35-13:00 PM	**FINAL REMARKS AND AWARDS ANNOUNCEMENT**	**Augusto Paranhos Jr, Ivan Maynart Tavares, Luiz Alberto Soares and Mauricio Maia**

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Information
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Paulo Schor
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Rubens Belfort Jr.
Solange Rios Salomão
Tiago dos Santos Prata
Wallace Chamon
Walton Nosé

Invited Speakers

Elazer Edelman, MD, PhD

SCIENTIFIC PROGRAM

December 10, 2020 - Thursday

8:10-8:20 AM	**OPENING REMARKS**	**Ivan Maynart Tavares**	
8:20-8:30 AM	**POSTGRADUATE PROGRAM**	**Augusto Paranhos Junior**	
8:30-8:35 AM	**PROGRAM HEADLINES**		
SESSION 1	**PAPER PRESENTATION**		
8:40-9:40 AM	**INFECTION** **Moderators: Denise de Freitas, Ana Luisa Hofling Lima, Rubens Belfort Jr and Cristina Muccioli**		
8:40-8:47 AM	Evaluation of Rose Bengal Mediated Photodynamic Therapy for in vitro inhibition of Acanthamoeba	Talita Trevizani Rocchetti	Post Doc
8:50-8:57 AM	Ocular Tuberculosis: 3-years of follow-up in a tertiary referral center of Brazil.	Yuslay Fernandez Zamora	PG1 DO
9:00-9:07 AM	Assessment of the effectiveness and a proposal of a new slit-lamp shield in the prevention of aerosol transmitted diseases during ophthalmic examination using computational simulations	Daniel Ferraz	Post Doc
9:10-9:17 AM	Evaluate the adhesion of Acanthamoeba polyphaga trophozoites to scleral contact lenses	Larissa Fagundes Pinto	PG1 ME
9:20-9:27 AM	EYE-COV trial: Ocular findings in Covid-19 outpatients	Paula Marques Marinho	PG1 DO
9:30-9:33 AM	Sars-CoV-2 and ocular surface: from physiology to pathology, a route to understand transmission and disease	Dalton De Freitas Santoro	PG1 DO
9:35-9:40 AM	Candida Species in Fungal Keratitis: Clinical Aspects, Molecular Characterization and Antifungal Susceptibility.	Fernanda Machado Bezerra	PG1 DO
9:40-10:10 AM	**INVITED LECTURE**	Elazer Edelman, MD, PhD	
10:10-10:30 AM	**COFFEE BREAK**		
SESSION 2	**PAPER PRESENTATION**		
10:30-11:25 AM	**IMAGING** **Moderators: Ivan Maynart Tavares, Jose Alvaro Pereira Gomes, Lauro Augusto de Oliveira and Solange Rios Salomão**		
10:30-10:37 AM	Retinal Ganglion Cell Function Assessed by the Photopic Negative Response in Brazilian Families with Leber's Hereditary Optic Neuropathy	Gabriel Izan Santos Botelho	PG1 DO
10:40-10:47 AM	Repeatability and Reproducibility of Photoreceptor Density Measurement in the Macula Using an SLO-based High Magnification Module	Luísa Salles De Moura Mendonça	PG1 DO
10:50-10:57 AM	Clinical ocular findings and visual status in patients with Xeroderma Pigmentosum in Brazil	Allexya Affonso Antunes Marcos	PG1 DO
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11:30-12:00 am	**POSTER SESSION 1 - ANGIOGENESIS, CELL THERAPY and IMAGING**		
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12:30 - 12:37 PM	Evaluation of botulinum toxin injections on the eyelid movement rate in patients with essential blepharospasm: Preliminary results	Cristina Yabumoto	PG1 DO
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SCIENTIFIC PROGRAM

December 11, 2020 - Friday

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8:50-9:00 AM	Comparison of clinical and vascular parameters between eyes with high and low-tension optic disc hemorrhage	Izabela Negrão Frota De Almeida	PG1 DO
SESSION 6	**PAPER PRESENTATION**		
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9:20-9:27 AM	Evaluation of the dry eyes in the experimental model of sjogren syndrome	Lucimeire Nova De Carvalho	PG1 DO
9:30-9:37 AM	Scaled pachymetric gain of FAST Cross-linking using hyposmolar riboflavin in patients with keratoconus	Fábio Kenji Matsumoto	PG1 DO
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10:10-10:13 AM	Higher lacrimal inflammatory mediators in keratoconus patients	Gustavo Souza Moura	PG1 DO
10:15-10:18 AM	Femtosecond Laser-Assisted in Situ Keratomileusis with Topography-Guided or Asphericity-Adjusted Placido Derived Data: A Contralateral Eye Comparative Study	Ermano de Melo Alves	PG1 DO
10:20-10:23 AM	Clinical and refractive outcomes of pars plana vitrectomy and secondary implantation of intraocular lens using four-point polytetrafluoroethylene scleral suture	Denise Pardini Marinho	PG0 DO
10:25-10:35 AM	**LECTURE**	**NOVARTIS®**	
10:35-11:00 AM	**POSTER SESSION 2 - IMAGING and INFECION**		
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11:20-11:27 AM	Second and third courses of Superselective Intra-Arterial Chemotherapy for treatment of recurrence in retinoblastoma eyes.	Luiz Fernando Teixeira	PG1 DO
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12:05-12:35 PM	**POSTER SESSION 3 - INFLAMMATION**		
12:45 – 13:00 PM	**FINAL REMARKS AND AWARDS ANNOUNCEMENT** **Augusto Paranhos Jr, Ivan Maynart Tavares, Luiz Alberto Soares and Mauricio Maia**		

POSTERS

December 10, 2020 - Thursday

11:30 – 12:00 AM **POSTER - SESSION 1**
ANGIOGENESIS, CELL THERAPY and IMAGING

Efficacy and safety of new anti-angiogenic drugs derived from heparinomimetics for neovascularization of choroid in animal model	Diego Lisboa Araújo	Fellow
Impact assessment of treatment interruption for diabetic macular edema with antiangiogenic therapy resulting from the COVID-19 pandemic in a public hospital in Brazil	Luciana Arrais	Fellow
Efficacy of new anti-angiogenic drugs derived from heparinomimetics for choroidal neovascularization in an animal model	Alex Treiger Grupenmacher	PG1
Prospection of new anti-angiogenic drugs based on chemically modified heparins	Vinicius Ferreira Kniggendorf	PG1
Eight-and-a-half syndrome: a case report	Mirella Millena Carmo De Andrade	R1
Recurrence of Ocular Surface Squamous Neoplasia (OSSN) after treatment in a tertiary hospital in Sao Paulo	Armando Coelho Brito	R2
Epidemiological Evaluation of Retinopathy of Prematurity at Hospital São Paulo	Julia Harumi Iwakura	R2
Epidemiological profile of patients with central retinal vein occlusion treated in a tertiary level ophtalmology service in São Paulo, Brazil	Franklin Kuraoka Oda	R2
Outcome bias in clinical trials on diabetic retinopathy: a cross-sectional analysis	Lucas Denadai	R3
A 3 year evaluation of the therapeutic success of Ocular Surface Squamous neoplasia in a tertiary hospital in Sao Paulo	Carolina Ando Matsuno	Fellow
The role of the internal clock on the expression of PKM2 and its phosphorylated form: synchronizing rhythms of retinal metabolism can be a new insight to treat retinal diseases	Bruna Lopes da Costa	PG0
Value-based Health Care Analysis in Ophthalmology	Raphael De Faria Schumann	PG0
Safety and efficacy analysis of a PAMAM-dendrimer-dextranconjugated polymer as a slow-release delivery device for anantiglaucomatous drug in an animal model	Augusto Alves Pinho Vieira	PG1
Evaluation of prototype printing of national 3D Cbot bioprinter for tissue engineering.	Vanessa Manchin Favaro	Technician
Giant retinal tear in a university referral center	Dante Akira Kondo Kuroiwa	Fellow
Comparation of lesion margins between Toluidine Blue 1% eye drops and Anterior Segment Optical Coherence Tomography in Ocular Surface Squamous Neoplasia	Flávia Benchimol Ferraz	Fellow
Quality of life in patients enucleated due to uveal melanoma	Lídia Guedes Bezerra	Fellow
Comparison of choroidal thickness in normal eyes and different ocular pathologies in a Brazilian population	Murilo Ubukata Polizelli	Fellow
Evaluation of panretinal light coagulation effects in patients with diabetic retinopathy through multimodal fundus imaging	Paulo Alberto Cervi Rosa	Fellow
Comparative evaluation of the eyelid lymphatic drainage pre and post lower blepharoplasty and pre and post filler injection with hyaluronic acid in the lower lid	Aline Pimentel de Miranda	PG0
The use of optical coherence tomography for detection of retinal alteration by RIPE in tuberculosis treatment	Brunella Pavan	PG0
Intraoperative wavefront aberrometry versus Barrett True K formula for IOL power calculations in post-LASIK eyes	Larissa Gouvea José Felicio Da Costa	PG0
detection of diabetic macular edema and prediction of OCT measures from color fundus photographs using deep learning.	Helen Nazareth Veloso dos Santos	PG0
Diagnostic performance of optic nerve head hemoglobin levels measurement in eyes with primary open angle glaucoma	Janaina Andrade Guimarães Rocha	PG0
Evaluation of retinal and choroidal thickness using spectral domain optic coherence tomography in asymptomatic sickle cell pediatric patients.	Juliana Moura Bastos Prazeres	PG0
Evaluation of high-order aberrations in regular corneas and their relationship with epithelial remodeling in patients submitted to topography-guided femtolasik	Adriana Falcão Veloso Lyra	PG1

(contoura®) in one eye and q-value customized (Custom-q®) on the contralateral eye.		
Nd: yag laser in the treatment of vitreous opacity: a randomized with a control group study	Carlos Eduardo de Souza	PG1
Intravitreal dexamethasone implant (Ozurdex®) serial evaluation with ocular ultrasound.	Gabriela Assumpção B. Pereira Pelegrini	PG1
Retinal microvascular density modifications during the water drinking test	Gustavo Rosa Gameiro	PG1
Comparison of Biometry Measurements Using Standard Partial Coherence Interferometry versus New Scheimpflug Tomography with Integrated Axial Length Capability.	Jorge Selem Haddad Neto	PG1

POSTERS

December 11, 2020 - Friday

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Profile of outpatient followup monitoring of patients with glaucoma in the brazilian public and private health sector	Marcos Pereira Vianello	PG1
A Brazilian Open Access Ophthalmological Database Process	Luis Filipe Nakayama	PG1
Safety and efficacy of implantation of a new intracorneal ring associated to photorefractive keratectomy to correct high myopia	Pablo Felipe Rodrigues	PG1
Best Vitelliform Macular Dystrophy (BVMD): a 4-year multimodal imaging follow-up & dark adapted perimetry evaluation	José R. Lima de Carvalho Jr.	PG1
Rapid spontaneous resolution of subretinal hemorrhage on a 9-year-old female patient with choroidal osteoma	Aileen Miwa Tabuse	R1
Lateral Medullary Syndrome (Wallemberg Syndrome) - a Case Report.	Tulio Loyola Figueiredo	R1
Assessing Satisfaction using Net Promoter Score in Infantile Low Vision consultations: In-Person versus Telemedicine.	Mariana Antunes Davi	R2
Seasonal trends of Acanthamoeba keratitis in a reference service	Celso de Souza Dias Júnior	Fellow
Report of the use in vivo confocal microscopy (ivmc) and anterior segment optical coherence tomography (as-oct) to evaluate tissue changes after cross-liking (cxl) as an adjuvant therapeutic modality for bacterial keratitis	Larissa Lograd Aguiar	Fellow
Nine-year epidemiological analysis of post anti-VEF injections endophthalmitis in a Brazilian hospital	Mariana Kawamuro	Fellow
COVID-19: ophthalmological screening in newborns	Olívia Pereira Kiappe	Fellow
The COVID-19 pandemic impact on the ocular cancer diagnosis and treatment	Vicente Fontes Júnior Conrado	Fellow
Evaluation of Rose Bengal Photodynamic Antimicrobial Therapy as an adjunctive treatment for severe keratitis: a case series	Wirley Alves Mendonça Junior	Fellow
Purpuriocillium keratitis: a challenging infection	Aline Carneiro Couto	PG0
The role of pars plana vitrectomy in acute intravitreal anti-vegf-related endophthalmitis: a Retrospective View	Vinicius Campos Bergamo	PG0
Quality-of-Life and Psychosocial Aspects in Patients with Ocular Toxoplasmosis in a Tertiary Care Hospital in Brazil.	Aristófanes Mendonça Canamary Jr.	PG1
Success in the treatment of the first two cases of Acanthamoeba endophthalmitis in Brazil	Luciana Lopes Rocha	PG1
Seroprevalence of Toxoplasma gondii in Blood Banks of Southern Brazil	Marisa Lúcia Romani Paraboni	PG1
Profile of stricto sensu graduates in ophthalmology and unifesp visual sciences	Rosangela Demetrio	PG1
Cytomegalovirus retinitis as opportunistic coinfection in a child with HIV/AIDS: a case report	David Cavalcante Barbosa	R1
White Dot Syndrome in a Patient with Presumed Ocular Tuberculosis	Juan Fulgencio Welko Mendoza	R1
Cavernous Sinus Tuberculosis as cause of Painful Multiple Ophthalmoplegia	Klaus Anton Tyrrasch	R1
Epidemiology of Pediatric Ocular Trauma	Júlia Jiquilin Carvalho	R2
Microbial Keratitis at a Tertiary Hospital in Sao Paulo, Brazil	Camila Kase	R3
Impact of SARS-CoV-2 Pandemic on Brazilian Ophthalmological Emergency Department Visits	Lucas Zago Ribeiro	R3
Impact of covid-19 infection on corneal esthesiometry	Lucas Baldissera Tochetto	R4
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10:45-12:30 PM **POSTER - SESSION 3**

INFLAMMATION

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Effects of panretinal laser photocoagulation on the tear function and ocular surface.	Bruno Mauricio Rodrigues de Oliveira	Fellow
Comparison of the use of analgesic drugs in panretinal photocoagulation on patients with diabetic retinopathy	Felipe Picanço Muralha	Fellow
Subretinal fluid application to macular hole closure	Guilherme Eiichi Takitani	Fellow
Ocular manifestations in patients with amyloidosis	Mayra Noves de Melo	Fellow
Femtosecond laser-assisted Cataract Surgery in Patients with Uveitis	Renata Farias Teixeira	Fellow
Ocular Graft-versus-host Disease in Allogenic Hematopoietic Stem Cell Transplantation in a Pediatric Population	Cinthia Kim	PG0
High particle variability across siliconized and oil-free syringes and needles from the same lots	Lydianne Lumack do Monte Agra	PG0
Frosted Angiitis	Vivian Cristina Costa Afonso	PG0
Meibomian gland dysfunction and ocular surface alterations following oral isotretinoin use for acne vulgaris	Fábio Mendonça Xavier Andrade	PG1
The association of serum 25-hydroxyvitamin D levels and severity of autoimmune uveitis in a tertiary referral center for uveitis - a cross sectional study.	Karine Koller	PG1
Prevalence and Risk Factors for Dry Eye Disease: the São Paulo Dry Eye Study	Leonardo Guedes Candido Marculino	PG1
Hydrogel polymer biocompatibility in vitreoretinal surgery.	Ramon Antunes De Oliveira	PG1
Eye disorders in patients with celiac disease and inflammatory bowel disease: a study using clinical data warehouse in a hospital in Germany	Thiago Gonçalves S. Martins	PG1
Sclerosing orbital inflammation in a middle-aged male patient: an IgG4-Related Ophthalmic Disease Case Report	Flávio De Ávila Fowler	R1
Unexpected neuro-ophthalmologic diagnosis at emergency room: case report	Guilherme Macedo Souza	R1
Case report: Steven-Johnson syndrome with severe ocular involvement diagnosis, management and follow-up	Mariana Araujo Dias	R1
Orbital granulomatosis with polyangiitis in a young patient	Thatiany Almeida Carvalho	R1
Eyelid Trauma in a Tertiary Hospital: An Epidemiological Study	Guilherme Havir Bufarah	R2
Is Reading Performance Impaired in Glaucoma Patients with Preserved Visual Acuity?	Mariana Chiba Ikeda	R2
Ocular Surface Disorder and Number of Hypotensive Medications: How they affect Glaucoma Treatment Compliance	Gustavo Albrecht Samico	R2
Is it a Coloboma or Not? A new definition for isolated lens coloboma: focal zonular dysgenesis	Victoria Sakamoto	R2
Ocular trauma in elderly patients: A Brazilian experience	Ana Carolina Yumi Itikawa	R3
Neurophthalmological patients seen from 2018 to 2020 at Hospital São Paulo, regarding age group and disease distribution	Beatriz Nugent da Cunha	R3
Plasma Jet Use in the Treatment of Refractory Meibomian Gland Dysfunction	José Arthur Pinto Milhomens	R3
Post-operative evaluation of patients with uveitis in a tertiary hospital	Gabriel Ferrante Abou Murad	R3
Cost-utility assessment of antiangiogenic therapy with bevacizumab for diabetic macular edema in the Brazilian public health system	Zaira Fernanda Martinho Nicolau	R3
Epidemiological analysis, clinical features and outcome of patients with peripheral ulcerative keratitis treated at the corneal sector of UNIFESP.	Polliana Alvarenga Rodrigues	R4
Chronic Ocular Sequelae in Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis of Brazilian patients	Rafael Jorge Alves De Alcântara	R4

2020 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

3. **THEME: (REQUIRED**)
Check one:

INFECCION

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"

Scientific Section Descriptions (two-letter code):

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

THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

1. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Talita Trevizani Rocchetti - Post-doc
Advisor: Ana Luisa Höfling Lima
e-mail: talitaunesp@gmail.com
CEP Number: 1.423.852

5. ABSTRACT (REQUIRED):

Title: Evaluation of Rose Bengal Mediated Photodynamic Therapy for in vitro inhibition of Acanthamoeba

Author and Co-authors: Talita Trevizani Rocchetti, Larissa Fagundes, Denise de Freitas, Maria Cecilia Zorat Yu, Viviane Peracine, Ana Luisa Hofling-Lima

Purpose:
To evaluate the in vitro efficacy of rose bengal mediated photodynamic therapy for inhibition of Acanthamoeba growth.

Methods:
Acanthamoeba polyphaga CDC V062 and one Acanthamoeba spp. cornea clinical isolate were grown on Peptone Yeast Glucose (PYG) at 30° C for 7 days. Strain was centrifuged at 2000 rpm for 15 minutes and the pellet was re-suspended using high-purity water. Cells concentrations were adjusted using a Neubauer chamber. Treatments conditions were tested in triplicate: Group I, control (no treated plate), Group II, Acanthamoeba suspension treated with 0.1% rose bengal and exposed to the dark for 30min, Group III, Acanthamoeba suspension treated with 0.1% rose bengal exposed to green light LED (12.87 mW) for 30min. Acanthamoeba was grown on non-nutrient agar (35mm culture dishes), incubated at 30°C and photographed after 168 hours. The plate was washed with Phosphate-Buffered Saline (PBS) for further incubation and death assessment.

Results:
Complete growth inhibition of Acanthamoeba polyphaga CDC V062 was demonstrated with 0.1% rose bengal under green LED irradiation for 30 minutes and the death was confirmed after 3 days of second incubation (Figure 1). Acanthamoeba spp. isolated from a clinical sample has the viability decreased in 85% after treated with 0,1% rose bengal under green LED irradiation for 30 minutes.

Conclusion:
Rose Bengal mediated photodynamic therapy demonstrated in vitro efficiency to inactivate Acanthamoeba spp.. Clinical treatment could be performed with photodynamic therapy as an adjunct treatment for Acanthamoeba spp. eye infection.

Keywords:
Acanthamoeba, photodynamic therapy, Keratitis

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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THEME:

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Cell therapy

Deadline: 10/2020

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

2. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Yuslay Fernández Zamora - PG1 DO
Advisor: Cristina Muccioli
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CEP Number: 945.294

5. ABSTRACT (REQUIRED):

Title: Ocular Tuberculosis: 3-years of follow-up in a tertiary referral center of Brazil.

Author and Co-authors: Yuslay Fernandez Zamora, Luciana Peixoto Finamor, Luci Meire P. Silva, Denise S. Rodrigues, Ricardo P. Casaroli-Marano, Cristina Muccioli.

Purpose:
To evaluate the clinical features and management of presumed ocular tuberculosis (OTB).

Methods:
A prospective 3-year follow-up study of patients with ocular inflammation that performed Interferon-gamma release assay (IGRA) and tuberculin skin test (TST) was conducted in a tertiary referral center in Brazil. Patients with clinical signs highly suspect of OTB with a positive TST and/or IGRA with other causes ruled out were prescribed anti-tuberculosis therapy (ATT) during 9 months. Clinical features and treatment outcomes were recorded.

Results:
Seventy-two patients (mean age 48.3, SD:15.7 years) were included in the study, and most were female (65.3%, n equal 47). Posterior uveitis (43.1%, n equal 31) was the main clinical feature. Multifocal choroiditis (25%, n equal 18) was the most common choroidal involvement. Concomitant oral prednisone (45.8%, n equal 33) during ATT was associated with more recurrences (p equal 0.04). A significant difference (p less than 0.001) between initial and final best-corrected visual acuity after ATT conclusion was observed. Cure or remission was observed in 58 (85.3%) patients that completed follow-up (n equal 68).

Conclusion:
In our cohort some variation in demographics and ocular phenotypes of presumed OTB was observed. The high rates of cure or remission of our patients strongly support the ATT in presumed OTB. Oral corticosteroids during ATT were associated with higher recurrences rates. Financial support: CNPq:401096/2014 (2015-2018), CAPES:001

Keywords:
Tuberculosis, ocular tuberculosis, interferon-gamma release assay, uveitis, intraocular inflammation.

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Co-authors (maximum 6)
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Methods
Results,
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3. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Daniel Ferraz - Post-doc
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CEP Number: 0693/2018

5. ABSTRACT (REQUIRED):

Title: Assessment of the effectiveness and a proposal of a new slit-lamp shield in the prevention of aerosol transmitted diseases during ophthalmic examination using computational simulations

Author and Co-authors: Daniel A. Ferraz, Edinilson A. Costa, Eduardo Martins, Pearse A. Keane, Daniel Ting, Paulo Schor, Rubens Belfort Jr, Rafael Scherer, Victor Koh, Cristina Muccioli,

Purpose:
Ophthalmologists are at high risk of contracting the Coronavirus Disease-19 due to the proximity with patients during slit-lamp examinations. We used a computation model to assess the efficacy of slit-lamp shields and proposed a new ergonomically designed shield.

Methods:
The simulations were performed using the commercial software Star-CCM+. The droplet aerosols were assumed to be 100% water in volume fraction with particle diameter distribution represented by a geometric mean of 74.4 ± 1.5 (standard deviation) ?m over a four-minute duration. The total mass of water droplets accumulated on the manikin and the mass expelled through the patient mouth were measured for three different conditions: 1) Without a slit lamp shield, 2) with the standard shield, 3) With the proposed new shield.

Results:
The total accumulated water droplet mass (kg) and percentage of expelled mass accumulated on the shield for each of the respective conditions were, 1) 5.84e-10 kg (28% of the total weight of particle emitted that has settled on the manikin), 2) 9.14e-13kg (0.045%), 3.19e-13 (0.015%). The standard shield was able to shield off 99.83% of the particles that would have otherwise deposited on the manikin which is similar to 99.95% for the proposed design

Conclusion:
Slit-lamp shields are effective infection control tools against respiratory droplets. The proposed shield showed comparable effectiveness compared with the conventional slit-lamp shields but would potentially offer better ergonomics for ophthalmologists during the slit-lamp examination.

Keywords:
Ophthalmology; Slit-lamp Shield; SARS-CoV-2; Computational Simulation

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THEME:

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Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

4. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Larissa Fagundes Pinto - PG1 ME
Advisor:: Denise de Freitas
e-mail: larifp1510@gmail.com
CEP Number: 290123012

5. ABSTRACT (REQUIRED):

Title: EVALUATE THE ADHESION OF ACANTHAMOEBA POLYPHAGA TROPHOZOITES TO SCLERAL CONTACT LENSES

Author and Co-authors: Larissa Fagundes Pinto* **, Maria Cecília Zorat Yu*, José Álvaro Pereira Gomes*, Viviane Peracini Sant?Ana*, Talita Trevizani Rocchetti*, Ana Luisa Hofling-Lima*, Denise de Freitas* *Department of Ophthalmology and Visual Sciences, Escola Paulista de Medicina, Hospital São Paulo, Federal University

Purpose:
Given the ability of other contact lens materials to provide Acanthamoeba adhesion to the surface of the lenses, a predisposing factor for the development of Acanthamoeba keratitis, this study aims to investigate whether scleral contact lenses composed of fluorosilicone Acrylate of high oxygen permeability and coated with Plasma O2 or Plasma O2 and Hydra-PEG (polyethylene glycol), ESCLERA® and Medicon Esclera SG® second-generation, Mediphacos, respectively, a new technology developed to improve the lubrication of the lenses and reduce the deposition of proteins and lipids, can promote the adhesion of the trophozoites of Acanthamoeba polyphaga (CDC: V062, genotype: T4), isolated from corneal scrapes with parasite infection, and thus transmit them to the corneal surface.

Methods:
It was subject of the study [1.] the silicone hydrogel soft lenses (Air Optix Aqua®, Alcon), positive control, [2.] the scleral lenses (ESCLERA® and Medicon Esclera SG®, Mediphacos), investigation subject, and [3.] lenses without Acanthamoeba exposure, negative control. Lenses were inoculated in triplicate in six-well plates containing 5mL of PYG (Peptone Yeast Glucose) medium and 10^5 trophozoites of Acanthamoeba polyphaga (CDC: V062 - maintained in PYG culture at 25ºC) per well and were incubated on an orbital shaker (80 RPM) at 25ºC for 90 minutes for adherence of trophozoites to the lenses. Subsequently, the lenses were washed in 5 mL of PAS (Page?s Amoeba Saline) for 1 minute on an orbital shaker (80 RPM) to remove the non-adherent trophozoites. After the washing procedure, the lenses were immersed in 0.4% Trypan® Blue to count viable and adhered trophozoites to the lenses. All processes were carried out on sterile conditions and statistical analyzes were performed using the VassarStats: Website for Statistical Computation software and P values '<' 0.05 were considered statistically significant.

Results:
To be concluded.

Conclusion:
To be concluded.

Keywords:
Acanthamoeba, contact lenses, Acanthamoeba keratitis, adhesion, corneal scleral lens, eye

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5. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Paula Marques Marinho - PG1 DO
Advisor: Rubens Belfort Jr.
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CEP Number: 4.100.149

5. ABSTRACT (REQUIRED):

Title: EYE-COV trial: Ocular findings in Covid-19 outpatients

Author and Co-authors: Paula M. Marinho, Allexya A. A. Marcos, Ana Marisa Castello Branco, André Romano, Paulo Schor, Heloisa Nascimento, Michel E Farah, Rubens Belfort Jr

Purpose:
To evaluate the eye in SarS-CoV-2 infected outpatients.

Methods:
Comprehensive ophthalmic evaluation comprised of best corrected visual acuity, goldmann applanation tonometry, anterior and posterior biomicroscopy and multimodal fundus evaluation (fundus picture, optical coherence tomography and optical coherence tomography angiography) in confirmed SarS-CoV-2 infected outpatients.

Results:
106 patients (56 female) were included in this trial. 17.92% had ocular findings, 1 had conjunctivitis, 3 had episcleritis, 6 had retinal hemorrhages and 12 cotton wool spots.

Conclusion:
the eye is a unique opportunity to examine in-vivo vasculature and may play a role as a biomarker of the disease severity.

Keywords:
Coronavirus, Uveites, Retina

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6. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Dalton De Freitas Santoro - PG1 DO
Advisor: Lauro Augusto de Oliveira
e-mail: daltonsantoro@me.com
CEP Number: 5024000

5. ABSTRACT (REQUIRED):

Title: Sars-CoV-2 and ocular surface: from physiology to pathology, a route to understand transmission and disease

Author and Co-authors: Dalton de Freitas Santoro, Luciene Barbosa de Sousa, Niels O. S. Câmara, Denise de Freitas and Lauro Augusto de Oliveira.

Purpose:
Discuss hypothetical Sars-Cov-2 ocular surface transmission mechanisms as well as related counterarguments addressed to both angiotensin converting enzyme 2 (ACE2) receptors found on the conjunctival and corneal epithelia, and to lactoferrin and secretory IgA levels in the tear film.

Methods:
Literature review

Results:
The ocular surface presents known requirements to SARS-COV-2 penetration: ACE2 receptor and TMPRRS 2. Ocular findings in Covid-19 patients are mostly unspecific: foreing body sensation and tearing present in 19% and 13.3% of the patients, respectively. Folicular conjunctivitis common to others viral conjunctivitis was reported in 3.17% of the cases. At present there are no reports of visual loss associated to COVID-19.Polimerase Chain Reaction (PCR) performed in conjunctival swab and in the tear film was positive in only 1.95% of the cases. Positivity was higher in patients with COVID-19 and conjunctivitis.The ocular surface has its own protective mechanisms against SARS-COV-2. Tear film lactoferrin inhibits the virus by sequestering iron and also by binding to heparan sulfate (that is believed to be the first anchor site to SARS-COV-2 in the cell surface). Immunoglobulin A (IgA) directly binds to the spike protein of the SARS-COV-2 blocking it?s invasion. Lysozime has already been reported as effective against virus, bacteria and fungi (not proved yet against SARS-COV-2) and might impairs SARS-COV-2 invasion. Blinking is an important mechanism of host defense by promoting a continuous washing of viral particles from the ocular surface (although they can reach the nasolacrimal duct and this could be a route to the upper airways).

Conclusion:
The ocular surface gathers the essential and yet described elements for SARS-COV-2 invasion through the eye. Molecular approaches have found viral particles in the tear film and conjunctiva. Associated ocular surface manifestations of conjunctivitis are nonspecific and relatively uncommon during the current outbreak. Research on novel cell membrane molecules and receptors as well as other local immune protective mechanisms to clarify the potential of the conjunctiva acting as an entry route for SARS-COV-2 are undertaken.

Keywords:
COVID19, ocular surface, conjunctiva, IgA, lactoferrin, ACE2

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7. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Fernanda Machado Bezerra - PG1 DO
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CEP Number: 60813565

5. ABSTRACT (REQUIRED):

Title: Candida Species in Fungal Keratitis: Clinical Aspects, Molecular Characterization and Antifungal Susceptibility.

Author and Co-authors: Fernanda M Linhares, MD, Ana L Hofling-Lima, PhD, Lauro A de Oliveira, PhD, Soraia L Lima, MSc, Talita T Rocchetti, MSc, Analy S de Azevedo, PhD

Purpose:
To describe clinical aspects, morphological and molecular characterization, and antifungal susceptibility profile of keratitis caused by Candida spp. in a referral cornea center in Brazil.

Methods:
Thirteen Candida spp. isolates obtained from 13 patients diagnosed with fungal keratitis were retrieved from the microbiology laboratory at São Paulo Federal University. The isolates were identified by micromorphological analysis and sequencing of Internal Transcribed Spacer (ITS) region of rDNA. Antifungal susceptibility tests were performed by broth microdilution method, according to the CLSI M27-A3 document. Four antifungal drugs were tested: fluconazole, amphotericin B, voriconazole and micafungin.

Results:
All isolates were identified in concordance by phenotypic and molecular methods. Ten were identified as C. parapsilosis sensu stricto(76.9%), 1 as C. orthopsilosis(7.7%) and 2 as C. albicans(15.4%). Regarding the antifungal susceptibility test, all isolates were susceptible to all antifungal drugs, whose MIC values ranged from 0.25-2.0 µg/ml to fluconazole, 0.125-1.0 µg/ml to amphotericin B, 0.03-0.03 µg/ml to voriconazole and 0.03-1.0 µg/ml to micafungin. There was no significant difference between 24hr and 48hr MIC readings. Previous ocular surgery was the main risk factor(n=11, 84.6%). Four patients(30.7%) required therapeutic keratoplasty and 2 patients(15.3%) ended-up with evisceration.

Conclusion:
Previous ocular surgery was the main risk factor. C. parapsilosis sensu stricto was the most frequent identified species, but there was one case of C. orthopsilosis (cryptic species). Despite in vitro susceptibility, almost half of the patients were unresponsive to clinical treatment and ended-up with therapeutic keratoplasty or evisceration.

Keywords:
antifungal agents, candida and keratitis

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8. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Gabriel Izan Santos Botelho - PG1 DO
Advisor: Adriana Berezovsk
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CEP Number: 0551/2018

5. ABSTRACT (REQUIRED):

Title: Retinal Ganglion Cell Function Assessed by the Photopic Negative Response in Brazilian Families with Leber's Hereditary Optic Neuropathy

Author and Co-authors: Gabriel Izan Santos Botelho1, Solange Rios Salomão1, Célia Harumi Tengan2, Felipo Victor Moura2, Daniel Martins Rocha1, Paula Baptista Eliseo da Silva1, Arthur Gustavo Fernandes1, Paula Yuri Sacai1, Adriana Berezovsky1 1.Laboratório de Eletrofisiologia Visual Clínica, Depto. de Oftalmologia e Ciênc

Purpose:
Leber's Hereditary Optic Neuropathy (LHON) is a mitochondrial disease that causes bilateral blindness predominantly in young male adults. Our purpose was to assess ganglion cell function by the photopic negative response (PhNR) in carriers and affected members of Brazilian families with LHON.

Methods:
Affected members genotyped for one of the three pathogenic LHON mitochondrial DNA mutations (m.11778G>A, m.14484T>C, m.3460G>A) and carriers were examined. A control group of healthy subjects was included. Full-field ERG PhNR were recorded using red (640 nm) flashes at 1 cd.s/m2, on blue (470 nm) rod saturating background. PhNR amplitude (µV) was measured from baseline-to-trough (BT). PhNR amplitudes among affected, carriers and controls were analyzed by Kruskal-Wallis test followed by post-hoc Dunn. P'<'.05 was considered for statistical significance.

Results:
A sample of 24 LHON affected patients (23 males, mean age=30.5 ±11.42yrs) with the following genotype: 11778 [N=15 (62.5%), 14 males, age at onset from 11.8 to 27.1 years, mean:19.2±4.5, mean disease duration: 9.3±11.5 yrs], 14484 [N=5 (20.8%) males, age at onset from 14.2 to 39.3 years, mean:24.1±10.2, mean disease duration: 16.7±10.9] and 3460 [4 (16.6%) males, age at onset from 14.9 to 29.9, disease duration: 4.3±2.2 yrs]. Carriers (mean age: 43.2±13.3 yrs) were 13 females and 1 male [11778 (N=11), 14484 (N=1) and 3460 (N=2)]. Controls were 8 females and 7 males (mean age: 32.6±11.5 yrs). PhNR amplitudes were significantly reduced (p'<'.0001) in LHON affected (-5.96±3.37 µV, n=24) compared to carriers (-16.53± 3.41 µV, n=14) and controls (-23.91±4.83 µV, n=15) and in carriers compared to controls (p'<'.0001).

Conclusion:
PhNR was severely reduced in LHON affected patients and mildly reduced in carriers suggesting possible subclinical abnormalities in the latter. These findings were similar among the three pathogenic mutations.

Keywords:
LHON, ganglion cells, photopic negative response, mitochondrial disease

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THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

9. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Luísa Salles De Moura Mendonça - PG1 DO
Advisor: Caio Regatieri
e-mail: luisasmmendonca@gmail.com
CEP Number: 7745-TMC

5. ABSTRACT (REQUIRED):

Title: Repeatability and Reproducibility of Photoreceptor Density Measurement in the Macula Using an SLO-based High Magnification Module

Author and Co-authors: Luísa Mendonça1,2, Phillip Braun2,Sarah Martin2, Alexander Hu?ther2, Nihaal Mehta2, Yi Zhao2, Omar Abu-Qamar2, Eleni Konstantinou2, Caio Regatieri1,2, Andre Witkin2, Caroline Baumal2, Jay Duker2, Nadia Waheed2. 1. Department of Ophthalmology, Federal University of São Paulo, SP, Brazil, 2. New En

Purpose:
To evaluate the repeatability and reproducibility of photoreceptor density assessment with manual cell counting in healthy subjects imaged with the Heidelberg High Magnification Module (HMM).

Methods:
This was a prospective study, approved by the Institutional Review Board at Tufts Medical Center (no. 7745). Healthy subjects were invited to participate. Images were acquired using the HMM, by a single operator during two separate sessions. The three highest-quality images of each eye from each session were selected for analysis and co-registered. For a subset of patients, a second operator acquired images in one session, and the images with best quality were used for analysis. Photoreceptor densities were obtained by manual counts in squares of 0.0625 mm2 located in the parafovea. Repeatability (intragrader and intrasession) and reproducibility (interoperator, intergrader and intersession) were assessed by calculating the intra-class correlation coefficient (ICC) from linear mixed effects models. Bland-Altman plots and Pearson?s correlation coefficients were also obtained.

Results:
Twenty-four eyes of thirteen healthy subjects were imaged initially. Of these, eleven eyes (45.83%) of eight subjects that had at least three acceptable images in each session were included in this study. Mean parafoveal photoreceptor density was 14,988 cells/mm2 (SD = 1403.15). Intragrader ICC was 0.84 (95% CI: 0.57, 0.95), intrasession ICC was 0.69 (95% CI: 0.17, 0.86), intersession ICC was 0.88 (95% CI: 0.53, 0.96), interoperator ICC was 0.70 (95% CI: 0, 0.95) and intergrader ICC was 0.22 (95% CI: 0, 0.71).

Conclusion:
Images obtained with the HMM allow for photoreceptor mosaic visualization in the parafovea. Variability within and between images was observed in this study, which did not demonstrate high repeatability and reproducibility for quantitative assessments using the manual counting method. Financial support: Capes-PrInt program, process no 88887.369769/2019-00.

Keywords:
photoreceptor; density; scanning laser ophthalmoscope; high magnification;

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Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

(TU) TUMORS AND PATHOLOGY

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Purpose
Methods
Results,
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Keywords

10. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Allexya Affonso Antunes Marcos - PG1 DO
Advisor: Denise de Freitas
e-mail: allexya.affonso@gmail.com
CEP Number: 951058187

5. ABSTRACT (REQUIRED):

Title: Clinical ocular findings and visual status in patients with Xeroderma Pigmentosum in Brazil

Author and Co-authors: Alléxya AA Marcos, Arthur G Fernandes, Melina C Morales, Rubens N. Belfort, Denise de Freitas

Purpose:
The main outcomes were to investigate ocular clinical findings and to determine the visual status of patients with XP in Brazil. The secondary outcomes were to describe macular and peripapillary retinal nerve fiber layer (pRNFL) by OCT and corneal endothelium using specular microscopy in these patients.

Methods:
A full ophthalmic examination was conducted including presenting and best-corrected visual acuity, Goldman tonometry for intraocular pressure (IOP), and slit-lamp assessment of the ocular surface, anterior chamber, lens, and fundus and, also evaluation by anterior and posterior OCT and specular microscopy.

Results:
A total of 42 participants aged from 2 to 62 years old (mean 27.12 ± 17.27) were included in the analysis. The majority of the patients were female (n=29 69.05%). The principal cause of visual impairment and blindness in this population were refractive error (31.6%), corneal scar (29.8%), and amblyopia (12.3%). Pathologic changes were observed by clinical exam and noted by affected structure: eyelids, conjunctivas, corneas, and fundus of 88.09%, 88.09%, 66.67%, and 7.14% participants, respectively. A total of 12 participants (28.57%) presented an active tumor on the clinical exam and 10 (26.19%) had signs of previous ocular tumor treatment. Six patients in our sample had changes in the corneal endothelium. In the patients who underwent OCT, all had normal macular thickness and six had changes in pRFNL measurements.

Conclusion:
These patients have numerous eye surface diseases that are challenging and, if not properly treated, can lead to mutilation and blindness. We recommend regular monitoring throughout life in all of these patients.

Keywords:
Xeroderma pigmentosum ? Skin neoplasms ? Eye neoplasms ? Genetics

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Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

(BE) OCULAR BIOENGINEERING

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Co-authors (maximum 6)
Purpose
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11. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Caio Henrique Marques Teixeira - PG1 ME
Advisor: Adriana Berezovsky
e-mail: caiomtex@gmail.com
CEP Number: 3.445.546

5. ABSTRACT (REQUIRED):

Title: Development of a prototype for a new electronic cane to use as mobility and navigation aid for the visually impaired.

Author and Co-authors: Caio Henrique Marques Texeira, Vagner Rogério dos Santos, Adriana Berezovsky

Purpose:
Visual impairment can significantly decrease the quality of life, and assistive technology aims at alleviating some of the problems caused by the visual impairment. Although the traditional white cane is considered the most widely used assistive technology for mobility, it has some limitations such as the inability to detect obstacles at upper body level. Our purpose is to develop an electronic cane prototype for mobility and navigation of the visually impaired.

Methods:
Inspired by this group of people?s need and the Smart Cities concept, we created an electronic cane to serve as a mobility and navigation aid that can be connected with the Smart Cities. The vibration feedback of obstacles provided by our electronic cane is transmitted by a wearable device. The electronic cane aid was tested by 2 healthy blindfolded volunteers without any visual impairment.

Results:
The volunteers were able to navigate outside while blindfolded guided only by the electronic cane. Both volunteers stated that the electronic cane provided the expected feedback by the wearable system, which means that the bracelets would vibrate while detecting obstacles. In addition, they could move around uneventfully. Furthermore, the navigation information of the electronic cane was collected by the software and sent to the IoT data management platform in real time, and the information remained available in the platform for 30 days, as verified by the researchers. The sensor at the bottom of the cane showed adequate for obstacle detection at ground level. The wearable system of our electronic cane made it possible to distinguish the vibrations resulting from the friction of the roller tip on the ground from the vibration of the motors that compose the wearable system bracelets.

Conclusion:
The electronic cane developed in this study worked properly, reaching its purpose as a proof of concept. It could be improved and made widely available, providing also navigation information to the user, in order to allow them to plan routes. These preliminar findings were paramount in order to guarantee reliability and safety in the use of the electronic cane.

Keywords:
Visual impairment; Blindness; Mobility; Information Technology and Telecommunications; Mobility Aids without Wheels; Low vision

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Deadline: 10/2020

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Methods
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12. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Aline Silveira Moriyama - PG1 DO
Advisor: Ana Luisa Höfling Lima
e-mail: aline_moriyama@yahoo.com
CEP Number: 35600120.

5. ABSTRACT (REQUIRED):

Title: Development and validation of a partial thickness cut device for Descemet membrane endothelial keratoplasty donor corneal preparation

Author and Co-authors: Robson Torres, Vagner Rogerio dos Santos, Adriana dos Santos Forseto, Ricardo Casaroli Marano, Jodhbir Singh Mehta, Ana Luisa Hofling-Lima

Purpose:
This project aims at developing and validating a partial thickness cut device to be used in conjunction with Hessburg-Barron donor corneal trephine in order to facilitate Descemet membrane endothelial keratoplasty (DMEK) graft preparation.

Methods:
The prototype of a ring for partial thickness trephination will be developed at the Innovations in Health Technology Lab of the Federal University of São Paulo. The design will be made using FreeCad software. The ring will be created with measures that will allow its positioning between the blade and the base of the trephine. The prototype will be created by 3D Cube 3 printer (3D Systems, USA) with polylactic acid (PLA). If necessary, adjustments will be made based on the first project. After a proof of concept, the device will them be confectioned with steel by Net Instrumentos Cirúrgicos (Sorocaba, Brazil). Subsequently, investigators will evaluate the safety and efficacy. Twelve cornealscleral buttons unsuitable for transplant due to positive serology with minimum endothelial cell density of 2,000 cells/mm2 will be trephinated using 9.5 mm Hessburg-Barron donor trephine (Surgistar, USA) and divided in 4 groups. Group 1 (n=3) will be evaluated with specular microscopy to determinate endothelial cell density and anterior segment optical coherency tomography (OCT) to determinate depth of cut. Group 2 (n=3) will be evaluated regarding completeness of circumferential cut. Group 3 (n=3) will have quality of cut evaluated by electronic microscopy. Group 4 (n=3) will have Descemet partially membrane stripped for DMEK graft preparation. Specular microscopy will be performed afterwards and surgical any complication will be recorded.

Results:
in progress

Conclusion:
in progress

Keywords:
keratoplasty, endothelial keratoplasty, DMEK, eye bank

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Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
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13. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Eduardo Nery Camilo - PG1 DO
Advisor: Augusto Paranhos Jr.
e-mail: eduardo_nery@hotmail.com
CEP Number: 74230-050

5. ABSTRACT (REQUIRED):

Title: The Relationship Between Quantitative Pupillometry in Patients With type 2 diabetes mellitus

Author and Co-authors: Eduardo Nery Rossi Camilo, Cleyton Rafael Gomes Silva, Cristhiane Goncalves, Ronaldo Martins da Costa, Celso Goncalves Camilo Junior, Nelson Rassi, Augusto Paranhos Junior

Purpose:
To assess the relationship between pupillary light re?ex in patients with type 2 diabetes.

Methods:
A pupilometer with a lighting system was used with external lighting sealing. To evaluate the direct pupil reflex, which had a luminance of 250 cd/m2 and a duration of 1 second after the patient had adapted to the dark . The interval between stimuli was 59 seconds. After data capture, in a data processing phase, data return declaration and data normalization were applied. In the last phase, a learning machine algorithm called random forest was run. The patients were classified into groups: Group 1 comprised healthy people and Group 2 comprised patients with 2 diabetes. All the patients underwent complete ophthalmologic consultation and macular OCT. Thus, the patients were diagnosed with type 2 diabetes based on the American Diabetes Association criteria. The automated pupillometry system was able to record, induce, and extract 96 pupil features.

Results:
Thirty-one volunteers were analyzed (16 volunteers in Group 1 and 15 volunteers in Group 2). The mean age was 60 years. As a result of the automated classification, the random forest model achieved a 94.0% accuracy in the identification of type II diabetes. These results are consistent with those of previously published studies, showing that diabetes is associated with the dysregulation of the autonomic system.

Conclusion:
There is a statistically signi?cant association between quantitative pupillometry in patients with type 2 diabetes mellitus

Keywords:
Chromatic Pupillary Reflex; Diabetes Mellitus, Type 2; Artificial Intelligence

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Deadline: 10/2020

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Methods
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14. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Luzia Diegues Silva - PG1 DO
Advisor: Lauro Augusto de Oliveira
e-mail: lu.diegues.silva@gmail.com
CEP Number: 5412004

5. ABSTRACT (REQUIRED):

Title: B-scan ultrasound, visual electrophysiology, and peri-operative videoendoscopy for predicting functional results in keratoprosthesis candidates

Author and Co-authors: Luzia Diegues Silva MD1, Albert Santos MD1, Flávio Eduardo Hirai MD. Ph.D1, Norma Allemann MD1,2, Adriana Berezovsky Ph.D1, Solange Rios Salomão Ph.D1, Paulo Ricardo Chaves de Oliveira MD1, Gabriel Costa de Andrade MD1, Andre Maia MD1, Luciene Barbosa de Sousa MD1, Lauro Augusto de Oliveira MD. Ph.D

Purpose:
The objective of this study was to analyze the ability of B-scan ultrasound, ocular electrophysiology testing, and videoendoscopic examination for predicting visual prognosis in Boston Type 1 keratoprosthesis (KPro-1) candidates. Indirect anatomical and electrophysiological findings, as well as the results from direct endoscopic evaluations, were correlated with postoperative functional data. Design: Prospective and interventional study. Subjects: Fourteen eyes of fourteen individual candidates to Kpro-1.

Methods:
Fourteen individuals who had previously been indicated for Kpro-1 surgery were included in this prospective and interventional study. All subjects underwent preoperative screening, including ophthalmic evaluation, B-scan ultrasound, electrophysiological testing, and perioperative intraocular videoendoscopic evaluation (VE). B-scan ultrasound, electrophysiological testing, and VE evaluation results were categorized as favorable or unfavorable predictors of the postoperative functional results according to predefined criteria. Main outcome measures: The predictability values of B-scan ultrasound, electrophysiological testing, and VE prognostication were calculated based on the level of visual acuity achieved.

Results:
All surgeries and perioperative VEs were uneventful. Preoperative BCVA ranged from light perception to counting fingers. The one-year postoperative BCVA was better than 20/200 (satisfactory visual acuity result) in nine eyes (69.2%) and 20/40 or better in 5 eyes (38.5%). B-scan ultrasound presented a positive predictive value (PPV) of 85.7% for satisfactory postoperative visual acuity, while electroretinography showed a PPV of 66.7% and visual evoked potential presented a PPV of 66.7%. The peri-operative VE PPV of a negative finding for satisfactory visual acuity was 100% in this sample.

Conclusion:
Fundoscopic visualization by intraocular videoendoscopic evaluation is an invasive but safe procedure that can be used to predict functional outcomes in keratoprosthesis candidates. This technique demonstrated better prognostication in keratoprosthesis candidates than B-scan ultrasound and electrophysiological testing.

Keywords:
keratoprosthesis, B-scan ultrasound, visual electrophysiology testing, posterior segment videoendoscopy

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15. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Louise Pelegrino Gomes Esporcatte - PG1 DO
Advisor: Renato Ambrósio
e-mail: louisepgomes@hotmail.com
CEP Number: 4.050.934

5. ABSTRACT (REQUIRED):

Title: Keratoconus and Corneal Ectasia with relatively low keratometry

Author and Co-authors: Louise Pellegrino Gomes Esporcatte Marcella Salomão Bernardo Teixeira Lopes Renato Ambrósio Jr.

Purpose:
The study aims to demonstrate clinical corneal ectasia cases with relatively low keratometry and to estimate such incidence.

Methods:
In a retrospective, analytical, and non-interventionist study comprised of 1293 patients were divided into four groups: 736 normal, 319 keratoconus (KC), 113 very asymmetric eyes with ectasia (VAE-E), and 125 very asymmetric eyes with normal topography (VAE-NT). All patients underwent Pentacam and Corvis ST (Oculus, Wetzlar, Germany) exams. We considered low keratometry based on the maximum keratometry (Kmax) lower than 47.6D, which agrees with the classic Rabinowitz criterion.

Results:
One hundred twenty-eight patients (29.62%) of 432 KC and VAE-E group have ectasia with low keratometry. In the KC group, 90 (28.21%) had Kmax '<' 47.6 D, and TKC is abnormal in 68.88%. The average of the age is 37.48 ± 15.24 years, and of select biomechanics parameters in the low KC + VAE-E group are: Kmax 43.08 ± 1.096, Kmf 47.17 ± 1.419, TBI 0.944 ± 0.1553, BAD-D 3.783 ± 1.555, CBI 0.575 ± 0.422, PRFI 0.798 ± 0.228, and SPA1 86.137 ± 19.598.

Conclusion:
Clinical corneal ectasia can be associated with relatively low keratometry having Kmax lower than 47.6D. The estimated incidence in KC and VAE-E patients may be 29.62%.

Keywords:
Keratoconus; Cornea ectasia; Low keratometry keratoconus; Corneal biomechanics

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(RS) REFRACTIVE SURGERY

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16. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Marcella Q. Salomão Hoyer De Carvalho - PG1 DO
Advisor: Renato Ambrósio
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CEP Number: 2.568.770

5. ABSTRACT (REQUIRED):

Title: Ectasia susceptibility identified by the integration of corneal tomography and biomechanics.

Author and Co-authors: Marcella Salomão Louise Pellegrino Gomes Esporcatte Bernardo Teixeira Lopes Renato Ambrósio Jr.

Purpose:
To report the role of corneal tomography and biomechanics to identify the risk to develop post-operative ectasia after LASIK.

Methods:
This is a case report on the investigation of the unoperated fellow eye from two patients who developed unilateral ectasia after been submitted to LASIK in one only. Corneal tomography was performed with the Pentacam HR and corneal biomechanics evaluation was performed with the Corvis ST (Oculus Optikgeräte GmbH, Wetzlar, Germany).

Results:
Corneal Biomechanical Index (CBI) value was 0.35 and 0.44 in each patient. Belin-Ambrósio Enhanced Ectasia D values (BAD D) were 1.12 and 1.24. Tomographic Biomechanical Index (TBI) values were 0.21 and 0.46.

Conclusion:
Corneal tomographic and biomechanical data enhances the evaluation of candidates for refractive surgery and adds to the multimodal diagnostic armamentarium. The integration of biomechanical data with corneal tomography with artificial intelligence data augments the sensitivity and specificity for screening and identifying the risk to develop corneal ectasia after LASIK.

Keywords:
Cornea ectasia; Corneal biomechanics; Corneal tomography

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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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THEME:

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Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

17. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Eduardo Bicalho Mariottoni - PG1 DO
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CEP Number: 04041-053

5. ABSTRACT (REQUIRED):

Title: Deep Learning Assisted Detection of Glaucoma Progression in Spectral-Domain Optical Coherence Tomography

Author and Co-authors: Eduardo B. Mariottoni, MD, Shounak Datta, PhD, Leonardo S. Shigueoka, MD, Alessandro A. Jammal, MD, Ivan M. Tavares, MD, PhD, Ricardo Henao, PhD, Lawrence Carin, PhD, Felipe A. Medeiros, MD, PhD

Purpose:
To develop a deep learning model to detect glaucoma progression using spectral-domain optical coherence tomography (SDOCT) measurements of retinal nerve fiber layer (RNFL) thickness.

Methods:
This is a retrospective cohort study. A total of 14,034 SDOCT scans were collected from 816 eyes (446 eyes with glaucoma, 129 eyes suspected of having glaucoma and 241 healthy eyes) from 462 individuals, Eyes had an average of 6.0 ± 4.1 follow-up visits, extending through 3.5 ± 1.8 years of follow up. A deep learning convolutional neural network model was trained to assess the SDOCT RNFL thickness measurements of two visits (a baseline and a follow-up) along with time between visits and predict the probability of glaucoma progression. The ground truth was defined by a consensus of glaucoma specialists. A heatmap was created to highlight areas of the RNFL thickness profile that had the greatest impact on the model predictions. The diagnostic performance of the deep learning model to discriminate between SDOCT tests that were stable and tests that presented glaucoma progression was evaluated by receiver operator characteristic (ROC) curve, sensitivity and specificity. We compared the performance of the deep learning model with trend-based analyses of glaucoma progression. Likelihood ratios were reported to better gauge the impact of the deep learning predictions in changing the probability of progression when used under different clinical scenarios.

Results:
Progression was detected by glaucoma specialists in 1,655 tests from 124 eyes of 106 individuals. The deep learning model had an area under the ROC curve of 0.935 (95% confidence interval [CI]: 0.915, 0.954), with sensitivity of 87.7% (95% CI: 83.7, 91.2) and specificity of 85.3% (95% CI: 80.9, 89.2) for the optimal cut-off point. Likelihood ratios for the deep learning model were associated with large changes in probability of progression in the vast majority of SDOCT tests.

Conclusion:
A deep learning model was able to assess the presence of glaucoma progression on RNFL measurements obtained by SDOCT. The model achieved good performance to discriminate between tests that were stable and tests that presented progression and could be used to monitor for structural glaucoma progression.

Keywords:
Glaucoma, progression, SDOCT, deep learning

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Cell therapy

Deadline: 10/2020

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

18. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Guilherme Andrade Do Nascimento Rocha - PG1 DO
Advisor: Luciene Barbosa
e-mail: drguilhermerocha@hotmail.com
CEP Number: 1222/2018

5. ABSTRACT (REQUIRED):

Title: 2-Steps High Myopia Tissue Saving Correction: Combination of ICR and PRK - Preliminary Results

Author and Co-authors: Guilherme Rocha, MD Thays Borges de Melo, MD Luciene Barbosa de Sousa, MD, PhD

Purpose:
Prospectively evaluate efficacy, stability, safety, refractive outcomes, and visual performance through corneal aberrometry and optical quality of a two-step surgical procedure, involving the implantation of a new ICR designed to high myopia eyes combined with a 6-month PRK, as an option for surgically treat high myopia eyes, and compare the obtained results with two control groups, one treated with single-step PRK, and other treated with the implantation of an ICL.

Methods:
We included eyes with high myopia (? 6.0 D) and very high myopia (? 9.0 D) with corrected distance visual acuity (CDVA) ? 0.3 LogMAR (Snellen 20/40 or better) and normal preoperative topography, that presented RST ? 300 µm with PRK and a 6.5 mm optic zone, and/or high risk (? 4 points) in Ectasia Risk Score System (ERSS), and/or the value of percent tissue altered (PTA) ? 40% after treatment simulation. Pre- and post-operative visual and refractive data, mean keratometry (Kmean) and corneal thickness at the thinnest point (CT-TP), corneal aberrometry records and optical quality data were analyzed at 1, 3, and 6 months postoperatively after each procedure. Corneal optical coherence tomography (C-OCT) was performed before and 6 months after PRK to assess corneal thickness over ICR for safety evaluation.

Results:
The study protocol comprises 40 eyes. Until now, we have already selected 18 patients (9 males and 9 females), involving 34 eyes. From this, we are going to report the preliminary results of the 21 eyes that already completed the study follow-up. Two eyes (1 patient) had ICR explanted before PRK due to patient dissatisfaction, and the remaining 11 eyes underwent ICR implantation and are under follow-up protocol.

Conclusion:
Until now, the proposed two-step surgery have proved to be safe and efficient for the treatment of high myopia, with the advantage of risk reduction as it significantly reduces tissue ablation, when compared to a single-step PRK, and reduces intraocular complications, when compared to ICL implantation.

Keywords:
myopia; refractive surgery

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(RE) RETINA AND VITREOUS

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Imaging
Cell therapy

Deadline: 10/2020

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Abstract should contain:

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Author
Co-authors (maximum 6)
Purpose
Methods
Results,
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19. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Marina Roizenblatt - PG1 DO
Advisor: Mauricio Maia
e-mail: maroizenb@gmail.com
CEP Number: 0464/2017

5. ABSTRACT (REQUIRED):

Title: A Multifactorial Approach for Improving the Surgical Performance of Novice Vitreoretinal Surgeons

Author and Co-authors: Marina Roizenblatt, Vitor Dias Gomes Barrios Marin, Alex Treiger Grupenmacher, Felipe Muralha, Kim Jiramongkolchai, Peter Louis Gehlbach, Michel Eid Farah, Rubens Belfort Jr., Mauricio Maia.

Purpose:
To quantitatively analyze and compare the surgical performance of novice vitreoretinal surgeons after exposure to caffeine, propranolol, alcohol, physical exercise, or polysomnographic recorded sleep deprivation.

Methods:
This prospective, self-controlled, cross-sectional study included 15 vitreoretinal fellows with under 2 years of experience. Surgical performance using a surgical simulator (Eyesi) was assessed after each exposure on five days: day 1, placebo, 2.5 mg/kg caffeine, and 5 mg/kg caffeine, day 2, placebo, 0.2 mg/kg propranolol, and 0.6 mg/kg propranolol, day 3, baseline simulation, breathalyzer reading of 0.06%-0.10% blood alcohol concentration (BAC) followed by 0.11%-0.15% BAC, day 4, baseline simulation, push-up sets with 50% repetition maximal (RM), followed by push-up sets with 85% RM, day 5, 3-hour sleep deprivation. The main outcome measure was the Eyesi-generated total scores (0-700).

Results:
Simulated performances worsened after increasing alcohol exposure based on the total score (X2=7, degrees of freedom=2, p=0.03). BAC of 0.06% to 0.10% and 0.11% to 0.15% was associated with diminished performance in terms of total scores compared to improvements after propranolol 0.6 and 0.2 mg/kg, respectively (?1=-22 vs. ?2=+13, p=0.02, ?1=-43 vs. ?2=+23, p=0.01). Propranolol 0.6 mg/kg was positively associated with the total score, compared to deterioration after 2.5 mg/kg caffeine (?1=+7 vs. ?2=-13, p=0.03).

Conclusion:
The overall surgical performance diminished in a dose-dependent manner after alcohol exposure. Caffeine 2.5 mg/kg was negatively associated with surgical dexterity, and overall performance improved after 0.2 mg/kg propranolol. No changes were observed in performance after short-term physical exercise or 3-hour sleep deprivation among novice vitreoretinal surgeons.

Keywords:
Novice surgeon, Surgical performance, Pars plana vitrectomy, Caffeine, Propranolol, Alcohol, Physical exercise, Sleep deprivation

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(PL) OCULOPLASTICS SURGERY

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THEME:

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

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Author
Co-authors (maximum 6)
Purpose
Methods
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Keywords

20. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Cristina Yabumoto - PG1 DO
Advisor: Mauro Silveira de Queiroz Campos
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CEP Number: 0534/2018

5. ABSTRACT (REQUIRED):

Title: Evaluation of botulinum toxin injections on the eyelid movement rate in patients with essential blepharospasm ? preliminary results

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

Purpose:
The effect of botulinum toxin injections in essential blepharospasm patients is usually assessed using grading systems. However, these tools do not permit to accurately assess the treatment effect. In order to objectively evaluate the effect of botulinum toxin injections on the rate of eyelid movements (spontaneous blink + anomalous eyelid movements) in patients with this condition, we used a high-speed video system.

Methods:
A prospective study was performed on 16 eyes of 8 patients with essential blepharospasm who underwent treatment with botulinum toxin injections in the affected muscles. Using a high-speed video system, the eyelid movements were recorded bilaterally for 3 min and then were analyzed by a software developed to assess the eyelid movement rate before and after treatment. Student?s t-test was used to compare the eyelid movement rate before and 15 days after botulinum toxin injections.

Results:
The mean age of the patients was 68.1 years (SD: 13.15), 66% were female. Statistically significant reduction was observed on the eyelid movement rate before and 15 days after the injections (27.78 +/- 17 and 9.01 +/- 9.9 respectively, p = 0.008).

Conclusion:
Our preliminary results suggest that our high-speed video system, associated with the use of the developed software, can objectively assess the effect of treatment with botulinum toxin injections in essential blepharospasm patients. A higher sample is needed to permit further considerations.

Keywords:
Essential blepharospasm; Botulinum Toxin; eyelid moviment rate; high-speed video system

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(RE) RETINA AND VITREOUS

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THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

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

21. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Renato Menezes Palácio - PG1 DO
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CEP Number: 2.423.404

5. ABSTRACT (REQUIRED):

Title: Initial Experiences of French and Brazilian Vitreoretinal Surgeons with a Digitally Assisted Visualization System

Author and Co-authors: Renato Palácios, André Maia, Maurício Maia, François Devin, Michel Farah

Purpose:
- To evaluate the initial experience of French and Brazilian vitreoretinal surgeons with a digitally assisted visualization system and to explore its potential advantages and disadvantages. - To evaluate anatomical surgical outcomes of full-thickness idiopathic macular holes (MH) and primary rhegmatogenous retinal detachment (RRD), by using traditional microscopy and 3-D visualization system.

Methods:
- Questionnaire applied to French and Brazilian surgeons: ergonomics, educational value, image sharpness, depth perception, field of view, technical skills, color filters, advantages and disadvantages, future expectations. - France: For treating MH,the surgeons performed 88 surgeries (44 with microscopy and 44 with 3-D), For treating primary RRD, surgeons performed 100 PPV (50 with microscopy and 50 with 3-D). - Brazil: For treating MH, the surgeons performed 40 surgeries (20 with microscopy and 20 with 3-D) - Full-thickness idiopathic macular holes (MH): Inclusion Criteria: Full-thickness idiopathic macular holes. Exclusion Criteria: Glaucoma, Uveitis, High Myopia [> 6 diopters (D)], Vitreoretinal diseases other than idiopathic MH, Previous vitreoretinal surgeries, History of trauma. - Primary rhegmatogenous retinal detachment (RRD): Inclusion Criteria: Primary RRD. Exclusion Criteria: Secondary RRD, High Myopia (>6 D), PVR B or C, Retinal dialysis, History of trauma, Scleral buckling, Giant retinal tears, Uveitis, Previous vitreoretinal surgeries, Vitreoretinal diseases other than primary RRD.

Results:
On the questionnaire, in both countries, 3-D was generally preferred instead of ocular viewing. The answers (scores/ratings) for all parameters were higher in the Brazilian group. The type of surgery benefitting most from the 3-D was macula surgery, while the worst was anterior segment procedures.Only with the French, the most used color filter is the black and white.In France, 92.1% MHs were successfully closed with one surgery. Out of the 100 eyes with a primary RRD, the anatomical success after 3 months of follow-up was 91%(no statistical difference between 3-D and ocular viewing).In Brazil, 90% MHs were successfully closed with one surgery.

Conclusion:
The surgeons generally preferred 3-D instead of ocular viewing, in two countries with different socio-economic realities.Vitrectomy surgery to treat MH and primary RRD can be performed using both methods of visualization with no significant difference in anatomical results.

Keywords:
fsdfs

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(TU) TUMORS AND PATHOLOGY

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22. FIRST (PRESENTING) AUTHOR (REQUIRED):
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CEP Number: 4017360

5. ABSTRACT (REQUIRED):

Title: Evaluation of new Receptacle for Ocular Surface Biopsies in Ocular Oncology Service

Author and Co-authors: Morales MC, Dias MBB, Gracitelli CPB, Sancho KFCB, Fernandes AG, Belfort RN, Rigueiro MP, Allemann N

Purpose:
To evaluate preparation of ocular surface biopsy specimen by the ophthalmic surgeon and the perception by the pathologist by comparing two techniques: standard filter paper with sutures and the Eye Patho receptacle. Eye Patho is a filter paper with a schematic drawing of the ocular surface in its base, developed with the intent of eliminating the need of making indicative diagrams on the pathology request form.

Methods:
This was a prospective study conducted at the Ocular Oncology Service of the Ophthalmology and Visual Sciences Department, and also at the Pathology Department, of the Federal University of São Paulo, São Paulo, Brazil. A number of 30 eyes with indication of ocular surface biopsy were divided in two groups: control group with routine preparation using filter paper and sutures, and Eye Patho group. Data was analyzed in terms of time spent in specimen handling by the surgeon, preservation of specimen and practicality in analyzing topography and margins by the pathologist.

Results:
There was no statistically significant differences about tumor location, clinical classification, type of biopsy and tumor size between Control Group and Eye Patho Group. There has been a statistically significant difference between the groups about time to prepare the specimen, with shorter time in Eye Patho Group, compared to the Control Group ($p'<'0.05$). Forty percent (40%) of specimens loosened from the paper in Eye Patho group. Those specimens were all nodular and with a medium size bigger than average, only 26.67%, however, needed more information for the pathologist to identify margins, while in the control group 100% of cases demanded further information.

Conclusion:
Eye Patho has proved to facilitate interpretation by pathologist, since evaluation of a diagram or drawing was mandatory in 100% of cases in control group in order to understand the specimen received, while in Eye Patho group, it was only in 26,67%, in which the specimen loosened from the paper probably due to nodular and extensive configuration of the tumor. Time spent by the ophthalmic surgeon in the operating room for specimen handling was optimized, making the process more intuitive not only for the pathologist but also for the surgeon, so it can be a great ally in biopsy routine.

Keywords:
Ocular Surface biopsy, specimen handling, ocular oncology

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23. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Renata Tieme Kato Kunitake - PG1 ME
Advisor: Norma Allemann
e-mail: tiekato@gmail.com
CEP Number: 0756/2018

5. ABSTRACT (REQUIRED):

Title: Chromatic vision and structural macular assessment in controlled primary congenital glaucoma children

Author and Co-authors: Renata Tiemi Kato, Christiane Rolim-de-Moura, Norma Allemann

Purpose:
Primary congenital glaucoma is a rare condition at birth or early infancy and usually requires surgical treatment with high success rates. However, even early treated and IOP controlled cases may have impact on vision development. This study aims to test color vision and perform structural macular and optic nerve assessment in controlled primary congenital children and describe color vision defect in this sample.

Methods:
Controlled primary congenital glaucoma children aged five to twelve years old, with corrected visual acuity better than 20/200 and IOP controlled with topical eye drops or surgical interventions were included. Exclusion criteria were non glaucomatous optic neuritis, retinal diseases, previous ocular trauma or systemic medications intake related to color vision defects. All eyes were submitted to exams in three steps: 1. Color vision test using Farnsworth D-15 (Quantitative color vision test, Precision Vision), one eye each time chosen randomly, 2. Complete ophthalmic exam: visual acuity, refraction, IOP measurement (Icare®, Tiolat Oy) and slit lamp biomicroscopy, 3. Fundoscopy under mydriasis and further structural macular and optic nerve imaging (SD-OCT Spectralis®, Heidelberg Eng.).

Results:
Eighteen eyes of eleven congenital glaucoma children were analyzed. Mean age was 7.83 (5-10) years old. All patients presented bilateral primary congenital glaucoma and a cup-to-disc ratio ranged from 0.2 to 0.9. Myopia was more prevalent in the group (0.25 Sph to -17.0 Sph) and best corrected visual acuity ranged from 20/20 to 20/200. Color vision test was normal in 14 eyes (77.8%) and abnormal with diffuse color discrimination error in 4 eyes (22.2%). Children with abnormal color vision had visual acuity ranged from 20/50 to 20/200 and cup to disc ratio ranged from 0.7 to 0.9. In the group with normal color vision, RNFL thickness was 76.9 (SD=20.1) and foveal thickness was 256.8 microns (SD=6.5). In the group with abnormal color vision, overall RNFL thickness was 70.0 microns (SD=12.2), foveal thickness was 265.0 microns (SD=46.0). Four eyes were not possible to perform OCT due to nystagmus, poor fixation and poor mydriasis.

Conclusion:
Structural measurements of macular thickness and peripapillary retinal nerve fiber layer were possible using SD-OCT in children with controlled primary congenital glaucoma. In the sample evaluated, five eyes showed abnormal color vision and could be related to worst visual acuity and larger cup to disc ratio, but not related to OCT findings.

Keywords:
Primary congenital glaucoma; children; color vision defects; ocular coherence tomography.

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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.

(BE) OCULAR BIOENGINEERING

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(UV) UVEITIS
(US) OCULAR ULTRASOUND

THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

24. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Aline Lutz De Araujo - PG1 DO
Advisor: Paulo Schor
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CEP Number: 1.571.558

5. ABSTRACT (REQUIRED):

Title: Ophthalmic image acquired by ophthalmologists and by allied health personnel as part of a telemedicine strategy: a comparative study of image quality

Author and Co-authors: Aline Lutz de Araujo, Dimitris Rucks Varvaki Rados, Anelise Decavatá Szortyka, Maicon Falavigna, Taís de Campos Moreira, Lisiane Hauser, Paula Blasco Gross, Andrea Longoni Lorentz, Lucas Maturro, Felipe Cabral, Ana Luiza Fontes de Azevedo Costa, Thiago Gonçalves dos Santos Martins, Rodolfo Souza da

Purpose:
This study evaluates the quality of ophthalmic images acquired by a nurse technician trained in teleophthalmology as compared with images acquired by an ophthalmologist, in order to provide a better understanding of the workforce necessary to operate remote care programs.

Methods:
A cross-sectional study was performed on 2044 images obtained from 118 participants of the TeleOftalmo project, in Brazil. Fundus and slit-lamp photography were performed on site by an ophthalmologist and by a nurse technician under the supervision of a remote ophthalmologist. Image quality was then evaluated by masked ophthalmologists. The proportion of suitable images in each group was compared.

Results:
The proportion of concordant classification regarding quality was 94.8%, with a corrected kappa agreement of 0.94. When analyzing each type of photo separately, there was no significant difference in the proportion of suitable images between on-site ophthalmologist and nurse technician with remote ophthalmologist assistance for the following: slit-lamp views of the anterior segment and anterior chamber periphery, and fundus photographs centered on the macula and on the optic disc (P = 0.825, P = 0.997, P = 0.194, and P = 0.449, respectively). For slit-lamp views of the lens, the proportion of suitable images was higher among those obtained by an ophthalmologist (99.6%) than by a technician (93.8%, P '<' 0.01).

Conclusion:
Ophthalmic photographs acquired by a trained technician consistently achieved >90% adequacy for remote reading. Compared with ophthalmologist-acquired photos, the proportion of images deemed suitable achieved a high overall agreement. These findings provide favorable evidence of the adequacy of teleophthalmological imaging by nurse technicians.

Keywords:
telemedicine, remote diagnosis, retinography

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Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

(EF) ELECTROPHYSIOLOGY

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Cell therapy

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Abstract should contain:

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

25. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Tarciana De Souza Soares - PG1 DO
Advisor: Solange Rios Salomão
e-mail: sstarciana@yahoo.com.br
CEP Number: 1.763.153

5. ABSTRACT (REQUIRED):

Title: DIAGNOSTIC CONTRIBUTION OF GRATING ACUITY OBJECTIVELY MEASURED BY SWEEP-VISUALLY EVOKED POTENTIALS IN UNEXPLAINED VISUAL LOSS

Author and Co-authors: Tarciana de Souza Soares, Adriana Berezovsky, Paula Yuri Sacai, Daniel Martins Rocha, Carina Verna, Arthur Gustavo Fernandes, Solange Rios Salomão
Laboratório de Eletrofisiologia Visual Clínica, Depto. de Oftalmologia e Ciências Visuais, UNIFESP

Purpose:
Unexplained visual loss (UVL) is a challenging condition in which the degree of patient?s subjective visual symptoms cannot be explained by the results of objective evaluation. A comprehensive examination should be performed to reject organic causes of visual loss. Our purpose was to investigate the diagnostic contribution of grating acuity objectively measured by sweep-visually evoked potentials (SVEP) in cases suspected of UVL.

Methods:
This is a retrospective case-control study including patients under suspicion of UVL referred for electrophysiological investigation and a control group of healthy volunteers. All participants had their distance visual acuity (VA) measured with a retro-illuminated ETDRS chart and their grating acuity measured by SVEP from each eye. Differences between VA scores (logMAR) from optotype VA (OVA) and grating acuity (GVA) were calculated and the eye showing higher discrepancy was analyzed. Receiver operating characteristic (ROC) curve was constructed to determine the best GVA cutoff to identify UVL cases and to compute its sensitivity/specificity. Sensitivity and 1-specificity was computed across the pairwise comparison between patients and controls.

Results:
A cohort of 76 patients [39 (51%) females, ages from 20 to 64 years (mean=47±11, median= 50)] and 28 controls [18 (64%) females, ages from 20 to 57 years (mean=27±9, median= 24)] were included. Overall, in patients, OVA ranged from 0.5 logMAR to no light perception (mean= 1.22±1.00 logMAR, median=1.40) and GVA from 0.04 to 1.98 logMAR (mean = 0.43±0.32 logMAR, median=0.40). The discrepancy between OVA and GVA ranged from 0.33 to 2.9 (mean=1.19±0.67 logMAR, median= 1.01). The area under ROC (AUC) for GVA to diagnose UVL was .995 with a cutoff of 0.09logMAR showing specificity of 100% and sensitivity of 96.1%.

Conclusion:
The current findings showed that grating acuity objectively measured by SVEP has contributed to the diagnosis of unexplained visual loss in this cohort of patients. This electrophysiological test should be considered in the clinical assessment of this condition.

Keywords:
unexplained visual loss, sweep visually evoked potentials, visual acuity

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(GL) GLAUCOMA

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Cell therapy

Deadline: 10/2020

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Abstract should contain:

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

26. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Izabela Negrão Frota De Almeida - PG1 DO
Advisor: Tiago dos Santos Prata
e-mail: almeidaizabela@gmail.com
CEP Number: 66063060

5. ABSTRACT (REQUIRED):

Title: COMPARISON OF CLINICAL AND VASCULAR PARAMETERS BETWEEN EYES WITH HIGH AND LOW-TENSION OPTIC DISC HEMORRHAGE

Author and Co-authors: Izabela Almeida, MD, Elise Taniguchi, MD, Cecília V Agapito Tito, MD, Sérgio H. Teixeira, MD, PhD, Cristiane Kayser, MD, PhD, Augusto Paranhos Jr, MD, PhD, Carolina P B Gracitelli, MD, PhD, Tiago S Prata, MD, PhD

Purpose:
We sought to compare clinical and vascular parameters, as assessed by endothelin-1 (ET-1) blood levels measurements, nailfold capillaroscopy (NC) and Laser Doppler Imaging (LDI) of distal phalanx, between open-angle glaucoma (OAG) patients with high (HTDH) and low-tension optic disc hemorrhage (LTDH).

Methods:
In this prospective study, we examined consecutive OAG patients for the presence of DHs. Patients were classified as HTDH if presenting with an IOP>or=16 mmHg at the time of DH detection. Those with an IOP'<'16 mmHg were classified as LTDH. Clinical and ocular data from the time of DH detection were collected. In addition, ET-1 blood concentration, NC and LDI was evaluated.

Results:
One hundred thirty-three patients (133 eyes) with DH were included for analysis. Regarding clinical characteristics, LTDH patients were more often women than those with HTDH (77% vs 42%, p=0.030). There was also a trend for a higher prevalence of Asian descendants (24% vs 9%, p=0.058) and symptoms suggestive of primary vascular dysregulation (34% vs 14%, p=0.057) in LTDH patients. Regarding the analysis of vascular parameters in a subset of the study participants, LDI evaluation revealed significantly lower blood flow measurements in LTDH patients when compared to those with HTDH 10 minutes after cold stimulus (241±105 vs 380±59, p'<'0.01), which persisted lower at 20 minutes (258±113 vs 398±51, p'<'0.01). In addition, there was a significant negative correlation between ET-1 blood concentration values and IOP at the time of DH detection (patients with DH in the low teens presented higher ET-1 levels, r=0.38, p=0.05).

Conclusion:
Our results suggest significant clinical and vascular differences between patients with HTDH and LTDH. Patients developing DHs with treated IOPs in the low teens more frequently fit in a profile represented by women, NTG diagnosis and greater VF loss. Not only symptoms suggestive of primary vascular dysregulation seem to be more frequent in patients developing DH with lower IOPs, but also objective findings of peripheral vascular dysfunction and higher ET-1 blood levels.

Keywords:
Open angle glaucoma; disk hemorrhage; vascular evaluation; nailfold capillaroscopy; Laser Doppler Imaging; Endothelin - 1

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(RE) RETINA AND VITREOUS

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THEME:

Infeccion
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Imaging
Cell therapy

Deadline: 10/2020

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Abstract should contain:

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

27. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Nelson Chamma Capelanes - PG0 DO
Advisor: Caio Regatieri
e-mail: nelsonchamma@gmail.com
CEP Number: 90330618.

5. ABSTRACT (REQUIRED):

Title: Evaluation of macular perfusion through OCT Angiography in patients with diabetic macular edema submitted to intravitreal therapy with biodegradable dexamethasone implant Ozurdex ®)

Author and Co-authors: Author: Nelson Chamma Capelanes Advisor: Professor Caio Vinicíus Saito Regatieri Co-Advisor: Dr. Fernando Malerbi

Purpose:
To compare macular vessel density through OCT Angiography (pre and posttreatment) in patients with diabetic macular edema submitted to intravitreal therapy with biodegradable dexamethasone implant (Ozurdex ®).

Methods:
Patients with diabetic macular edema identified through clinical examination (fundoscopy) and confirmed by optical coherence tomography are being be selected. After confirmation of edema and quantification of macular thickness, all patients are being scanned with the 3 mm x 3 mm scan pattern using Angioscan OCTA software for the RS 3000 Advance OCT system (Nidek). 60 eyes will be imaged on 4 successive clinic visits, one week before the procedure and 30, 60 and 90 days after the intravitreal implant. Two different readers are measuring the area using generated en face OCT A images of the superficial capillary plexuses. Contrast sensivity and visual acuity will be measured in all visits.

Results:
So far we have 21 eyes of 21 patients completed. There was a loss of 9 patients during the study, due to not attending one or more visits or due to the unsatisfactory strenght of the OCT Signal, due to the opacity of the media (vitreous hemorrhage, cataract, among others). The statistical analysis of this first part of the study should be fully completed in the next few days. In November 2020, this first part of the study should be ready for publication. The next 30 patients will be selected after Allergan delivers the last 30 Ozurdex samples, which will only happen after the publication of this first part of the study.

Conclusion:
Waiting to finish the statistical analysis in the next few days.

Keywords:
Diabetes Macular Edema; Diabetic Retinopathy; Intravitreal Dexamethasone Implant; OCT Angiography; Macular Perfusion;

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(CO) CORNEA AND EXTERNAL DISEASE

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THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

28. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Cristina Cagliari - PG0 DO
Advisor: Denise de Freitas
e-mail: cagliari.c@gmail.com
CEP Number: 1330/2006

5. ABSTRACT (REQUIRED):

Title: Endothelial changes in the use of scleral contact lenses

Author and Co-authors: Cristina Cagliari, Denise de Freitas, Mirna Serapião dos Santos, Luis Formetin, César Lipener, Helena Oliveira, Arthur Fernandes

Purpose:
The aim of this study was to evaluate morphological endothelial changes correlated to adjustment values ??in patients with keratoconus who are users of scleral contact lenses

Methods:
A prospective and observational comparative cases series was conducted.A total of 41 eyes from 26 individuals diagnosed with keratoconus and without previous use of scleral contact lenses were included. The contact lenses used were ZENLENS ? (Boston XO ? DK FATT 100, diameter 16 and 17 mm, Solótica, Brazil). Patients were evaluated on the baseline, for delivery and usage guidelines, and on the 30 and 90 days of use for follow-up and exams.The ophthalmological exams performed were: (i.) Dynamic refraction with a Greens refractor and Snellen table, (ii.) slit lamp biomicroscopy and use of vital eye drops, (iii.) corneal specular microscopy with EM 3000® device (Tomey, Japan), (iv.) Cornea image with Scheimpflug camera with the Pentacam® device (Oculus, Germany), (v.) anterior segment optical coherence tomography with the OCT Visante® device (Zeiss, USA). The biomicroscopic examination analyzed the anterior segment of the eyes with the following objectives: (i.) to verify the health of the ocular surface in general, (ii.) evaluate the presence of keratitis or corneal neovessels, (iii.) ensure adequate adaptation of the lenses. Specular microscopy was performed in the central corneal region and the following data were analyzed: density of endothelial cells, coefficient of variation and cell pleomorphism. Scheimpflug images assessed corneal curvature and pachymetry. The OCT evaluated the corneal pachymetry measurements considering the sagittal height.

Results:
Until the present moment, there was no statistically significant difference between the clinical parameters of specular microscopy, Scheimpflug tomography and corneal optical coherence tomography before and with 30 and 90 days of use of scleral lenses. There was no statistically significant correlation between pachymetry and SAG, regardless of the capture method as well as no difference in the measures of pleomorphism of the corneal endothelium during the time of the study. The collected data were analyzed using the STATA 14.0 program (StataCorp LP, College Station, TX, USA).

Conclusion:
work in progress

Keywords:
cornea, endothelium, contact lenses, scleral contact lenses,

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Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

29. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Lucimeire Nova De Carvalho - PG1 DO
Advisor: José Álvaro Pereira Gomes
e-mail: lucinova@gmail.com
CEP Number: 9850020

5. ABSTRACT (REQUIRED):

Title: Evaluation of the dry eyes in the experimental model of sjogren syndrome

Author and Co-authors: Lucimeire Nova de Carvalho, Priscila Cardoso Cristovam, Tais Hitomi Wakamatso, Alex Nasare and adivsor Jose Alvaro Pereira Gomes

Purpose:
To test a vasodilator substance in the treatment of an experimental model of dry

Methods:
After standardizing the experimental model of SjS in non-obese diabetic (NOD) female mice, they were divided into 5 groups: control healthy animals Nod Scid cb-17, Sjögren's Syndrome group, sick NOD animals, SjS + treatment group and SjS + water group All animals were submitted to tear measurement by the red phenol test and examination of a slit lamp with fluorescein staining to check for epithelial keratitis. After 30 days of treatment, the animals were sacrificed and the eyeballs and the lacrimal and meibomian glands were collected for histological and immunohistochemical analysis and PCR Array.

Results:
The SjS animals (NOD) presented glycemia greater than 500mg / ml and the control animals presented normal glycemia on average 120mg / ml. The phenol red test showed an increase in the treated group in the tear production of the SjS animals when compared to the control group. Keratitis was reversed in the treated group, while in the water group there was a subtle improvement. The analysis by PCR array, which is still in progress, shows an improvement of some interleukins analyzed in the treated group in relation to the sick group. Histopathology showed that the lacrimal glands of the sick animals presented parenchyma with mucosal acini showing extensive dilation of light, accumulation of secretion and epithelial cells with an atrophic aspect, but in the treated group it was not apparent.

Conclusion:
The results suggest that the vasodilating substance used here had an effect on the dry eye in this animal model, reversing keratitis, increasing lacrimal production. Still in analysis for a better conclusion, the data suggest that this substance internalized and improved the condition of the lacrimal glands, thus being a potential treatment for this condition.

Keywords:
Dry eyes; Sjogren Syndrome; NOD;

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(CO) CORNEA AND EXTERNAL DISEASE

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Abstract should contain:

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

30. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Fábio Kenji Matsumoto - PG1 DO
Advisor: Luciene Barbosa
e-mail: fabiokenji75@gmail.com
CEP Number: 8.020.043

5. ABSTRACT (REQUIRED):

Title: Scaled pachymetric gain of FAST Cross-linking using hyposmolar riboflavin in patients with keratoconus

Author and Co-authors: Fábio Kenji Matsumoto, MD, Marcelo Tojar, MD, Luciene Barbosa de Souza, MD, PhD

Purpose:
To evaluate the gain of intraoperative pachymetry measurement in patients undergoing FAST Cross-linking with hyposmolar riboflavin in thinned corneas. It also investigates possible endothelial damage after this procedure, maximum curvature (Kmax) stability and corneal thickness assessment

Methods:
This is a prospective case series, conducted at the Department of Ophthalmology and Visual Sciences of the Paulista School of Medicine / UNIFESP. Preoperatively, all patients underwent full eye examination, specular microscopy (Nidek CEM 530 Specular Microscope®) and corneal tomography (Oculus Pentacam HR®). The riboflavin with methylcellulose was Hyposmolar 0.1% of EyePharma. An ANVISA-regulated Tomey SP-100® portable caliper monitored the pachymetry gain during the procedure and the measurement was evaluated before epithelium removal (epif-off), immediately after epithelium removal, and within the following minutes after initiating the hyposmolar riboflavin instillation: 10 and 20 minutes. In the last 10 minutes, the UVA radiation with Opto CXL Laser® (370nm, 3mW / cm2, b5.4 J / cm2, distance of 05 cm) had hyposmolar riboflavin instillation every 2 minutes without interruption of light. The inclusion criteria of this study is: age greater than or equal to 14 years, progression of keratoconus based on increase of maximum curvature (Kmáx) 0,75D in 06 months or 1,00D in 01 year (maximum value of 70D), epithelium-free pachymetry between 330-400 µm (epi-off) and no use of gas permeable rigid lens or any other type of lens 14 days prior to analysis of measurements and procedure. The exclude criteria: expectation of visual improvement, acute hydrops keratoconus, significant corneal opacity, collagen/autoimmune or other systemic diseases and pregnancy.

Results:
In progress

Conclusion:
In progress

Keywords:
Keratoconus, FAST Cross-linking, hyposmolar riboflavin

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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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Scientific Section Descriptions (two-letter code):

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(UV) UVEITIS
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THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

31. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Mariana Batista Gonçalves - PG1 DO
Advisor: Mauricio Maia
e-mail: mari-batista@bol.com.br
CEP Number: 2.408.335

5. ABSTRACT (REQUIRED):

Title: Mathematical model for degradation and drug release from an intravitreal biodegradable implant

Author and Co-authors: J. A. Ferreira, M. B. Gonçalves, E. Gudiño, M. Maia and C. M. Oishi

Purpose:
To introduce a new model for drug delivery from a poly (lacticco-glycolic acid) (PLGA) biodegradable intravitreal implant.

Methods:
In this study, the drug release and the degradation process of a biodegradable intravitreal implant are analyzed from a mathematical point of view. In particular, two different clinical situations are considered: non-vitrectomized and vitrectomized eyes. In the former case, we assume that the vitreous humor is replaced by a saline solution or by silicone oil. In the intravitreal space, the intravitreal liquid enters the implant by non-Fickian diffusion, causing the degradation of the PLGA based implant. Then, the drug in the implant dissolves and diffuses out of the polymeric matrix. The transport of drug in the vitreous chamber and retina is modeled by Fickian diffusion and convection generated by the flow of the vitreous humor. We analyzed the behavior of drug concentration in the vitreous and the retina considering the commercialized intravitreal implant Ozurdex®. The numerical simulations in this study were performed without considering the movement of the dexamethasone implant in the vitreous cavity.

Results:
In vitrectomized eyes, we observe a step increase in the mean concentration of drug in the vitreous and in the retina during the first period (approximately 20 days), followed by a slow increase period (approximately 10 days). The drug concentration starts to drop after 30 days. Compared to non-vitrectomized eyes, in vitrectomized eyes with saline solution, the behavior of drug concentration is qualitatively similar, but there is less accumulation of drug in the vitreous and the retina. On the other hand, the behavior of the drug concentration in a vitrectomized eye with silicone oil differs both qualitatively and quantitatively from the drug concentration in a non-vitrectomized eye.

Conclusion:
We exhibit a mathematical model for drug delivery from an intravitreal implant, taking into consideration the viscoelastic properties of the polymeric matrix and the underlying chemical reactions responsible for degradation. Future work involving data-driven models can be employed to support clinical decision in medical research.

Keywords:
Biodegradable implant; drug delivery; non-Fickian diffusion; Implcit-Explicit schemes

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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

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

32. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Murilo Bertazzo Peres - PG0 DO
Advisor: Mauro Silveira de Queiroz Campos
e-mail: murilobp@gmail.com
CEP Number: 4.011.824

5. ABSTRACT (REQUIRED):

Title: Macromolecular changes in the extracellular matrix of human corneas with keratoconus and after crosslinking with açaí (Euterpe oleracea) extract: an ex vivo and in vitro study

Author and Co-authors: Murilo B Peres, Joyce Luciana Covre, Renan P Cavalheiro,Yara M C S Michelacci,Mauro S Q Campos

Purpose:
To analyze changes in the composition of the extracellular matrix of keratoconous corneal(KC) stroma, compared to normal corneas(NC). To study the effects in vitro effects of açaí extract.

Methods:
12 KC from penetrating corneal transplantation and 8 NC from eye bank were selected.We performed macromolecule extraction, Western blotting(WB), protein dosing, ELISA and immunofluorescence.The proteoglycans (PGs), decorim(DC) and lumicam(LC), keratan sulfate(KS) glycosaminoglycan, metalloproteases MMP2, MMP9 and MMP13 and cathepsins B and L were analyzed. To analyze the action of açaí extract, type I collagen discs were incubated overnight with different concentrations of açaí extract, and alternatively with 30% ethanol açaí extract solution in BSS, and BSS for control. After washing and incubation with collagenase, we mesured the disc weight variation at different times. NC and KC keratocytes were cultured to assess the cell viability to açaí extract in various concentrations and exposure time.

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 both.The average of macromolecules extracted per mg of wet corneal tissue in the NC and KC respectively was 4,093±2.38ug and 1.53±1.35(p=0.02) for protein,0.1±0.03and 0.08±0.06(p=0.33) for DC,0.1±0.03 and 0.08±0.05 for LC(p=0.3),3.18±1.86ug and 2.5±1.34ug for KS(p=0.39).The average PGs extracted per ug of protein in the NC and KC respectively were 0.03±0.01 and 0.07±0.05 (p=0.03) for DC, 0.03±0.01 and 0.08±0.05 for LC(p=0.00), 1.24±1.16ug and 2.51±2.02ug for KS(p=0.09).In immunofluorescence PGs are located in stroma, with no differences in NC and KC.Collagen discs incubated with higher concentrations of açaí extract became more resistant to collagenase action. The cell culture results indicate that, keratoconus keratocytes are more sensitive to the açaí extract, mainly in concentrations above 2%. Exposure time did not appear to have importance.

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 that of normal (WB) .There was statistically less protein extraction in KC. DC, LC and KS showed no statistical differences between KC and NC when measured by mg of wet tissue, but DC and LC showed statistically lower concentration in NC when measured by mg of extracted proteins, showing that these PGs are preserved in KC. MMP13 was detected by western blotting only in KC. In vitro treatment with açaí extract increased collagen resistance to collagenase enzyme digestion, showing crosslinking. Keratoconus keratocytes are more sensitive to the açaí extract and higher concentrations do more harm than longer exposures

Keywords:
cornea, proteoglycans, cross-linking corneal, keratoconus, elisa, western blotting, açaí, Euterpe oleracea

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(CO) CORNEA AND EXTERNAL DISEASE

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THEME:

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

33. FIRST (PRESENTING) AUTHOR (REQUIRED):
Advisor: Albert Wilson Santos Machado Silva - PG1 DO
Orientador: Lauro Augusto de Oliveira
e-mail: albertwsms@yahoo.com.br
CEP Number: 0884/2018

5. ABSTRACT (REQUIRED):

Title: Characterization of inflammatory mediators in the tear film, conjunctival epithelium and corneal epithelium in keratoconus patients.

Author and Co-authors: Albert Silva, Luciene Barbosa de Sousa, Niels Olsen, Lauro Augusto de Oliveira.

Purpose:
To investigate inflammatory mediators in the tear film, conjunctival epithelium and corneal epithelium in keratoconus patients.

Methods:
This is a transversal study involving 61 individuals (31 keratoconus patients who underwent corneal crosslinking and 30 patients who underwent photorefractive keratectomy as a control group). Lacrimal samples were collected by washing and will be analyzed by ELISA (IL-5, IL-6 and IgA). Conjunctival epithelium were collected using impression cytology and exfoliative cytology. We will perform immunofluorescence and confocal microscopy looking for specific markers as IL-5, IL-6 and IgA. Corneal epithelium were obtained by manual keratectomy (from PRK and CXL patients). Gene expression of IL-5, IL-6 and eotaxin in the corneal epithelium will be analyzed by real time-PCR after mRNA extraction from corneal epithelial cells.

Results:
Preliminary results using a broad inflammatory bioplex assay demonstrated higher tear concentration of IL-5 and IL-6 in keratoconus patients compared to control. RT-PCR did not detect eotaxin and IL-6 expression in corneal epithelium, while IL-5 expression was detected but without significant difference between control and keratoconus groups. We have finished patient recruitment and we are now analyzing the samples.

Conclusion:
So far, we have preliminary and non-conclusive results.

Keywords:
inflammatory biomarkers, tear film, keratoconus.

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(CO) CORNEA AND EXTERNAL DISEASE

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Cell therapy

Deadline: 10/2020

FORMAT:

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

34. FIRST (PRESENTING) AUTHOR (REQUIRED):
Advisor: Gustavo Souza Moura - PG1 DO
Orientador: Luciene Barbosa
e-mail: oftalmosergipe@gmail.com
CEP Number: 672479

5. ABSTRACT (REQUIRED):

Title: Higher lacrimal inflammatory mediators in keratoconus patients

Author and Co-authors: Gustavo Souza Moura 1,2, Niels Olsen Saraiva Camara 3, Lauro Augusto de Oliveira 2, Luciene Barbosa de Sousa 2. 1. Sorocaba Eye Bank. 2. Department of Ophthalmology and Visual Science, UNIFESP. 3. Department of Immunology, Institute of Biomedical Sciences IV, University of São Paulo, São Paulo, Braz

Purpose:
This study aims to characterize the tear film immunologic profile in keratoconus (KC) patients. Correlate the immunologic profile with atopy and with disease progression or stability over time

Methods:
The study involved 30 KC patients clinically graded and 18 healthy, nonectatic subjects as controls. Tear levels of 21 cytokines were measured using a bioplex kit (Human High Sensitivity - HSTCMAG28SPMX21, Merck Millipore) following the method suggested by the manufacturer. Keratometric measurements were used as a diagnostic tool for ectatic disease as well as to identify cases of disease progression. Disease progression was defined as an apical keratometric increase of 0.75 D in 6 months evaluation. Correlations between cytokines profile, atopy, keratometric measurements and disease status were analyzed longitudinally in the keratoconus group. Cy tokines profiles were compared between keratoconus and control group

Results:
Lacrimal cytokines concentration was higher in the KC patients than controls in 14 of 21 cytokines analyzed. IL-6 was the most relevant cytokine found in KC patients, especially when associated with atopy. There was no correlation between KC progression and the level of inflammatory cytokines when analyzed longitudinally. KC severity was correlated with IL-6 concentration, where the more severe KC presented a higher IL-6 concentration in the tear, especially when evaluating atopic samples

Conclusion:
Inflammatory activity seems to be involved in the pathogenesis of KC. IL-6 was significantly higher in KC patients? tears and was related to disease severity and atopy

Keywords:
keratoconus; inflammatory mediators; atopy

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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THEME:

Infeccion
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Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

35. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Ermano de Melo Alves - PG1 DO
Advisor: Paulo Schor
e-mail: ermanomelo@gmail.com
CEP Number: 99017

5. ABSTRACT (REQUIRED):

Title: Femtosecond Laser-Assisted in Situ Keratomileusis with Topography-Guided or Asphericity-Adjusted Placido Derived Data: A Contralateral Eye Comparative Study

Author and Co-authors: Ermano M Alves, Adriana F Lyra, Manuela Tenório, Natália Mesquita, Carolina Bacelar, Afra Montenegro, Lucas Alves, Márcio Alves

Purpose:
Wavefront optimized laser-assisted in situ keratomileusis (LASIK) ablation is the most commonly performed procedure in refractive surgery, but new technologies have become available. Our purpose was to compare topography-guided customized (T-CAT) and asphericity customized (Custom-Q) ablation treatments for the correction of myopia with or without astigmatism

Methods:
This prospective, randomized, double-blind, contralateral eye study included 76 eyes of 38 patients with myopia or myopic astigmatism requiring FemtoLASIK treatment. For each patient, after randomization, one eye received T-CAT treatment and the other custom-Q treatment. Uncorrected distance visual acuity (UDVA), corrected distance visual acuity (CDVA), manifest refractive spherical equivalent (MRSE), sphere (SPH), cylinder (CYL), pachymetry (PACHY), and 6,0-mm total corneal aberrations root mean square (RMS), coma (COMA), trefoil (TRE), and spherical aberrations (SA) were measured after 3-month follow-up period. Standard visual and refractive graphs were plotted. A generalized estimating equation and linear regression analysis were used for statistical analysis.

Results:
The average difference in UDVA between the T-CAT and Custom-Q treatment groups was 0.015 logMAR (Wald ?²(1) = 0.691, p-value = 0.406). The Custom-Q group achieved 20/16 or better UDVA in 84% of the eyes compared to 79% of the eyes in the T-CAT group. A UDVA of 20/20 was obtained in 97% of patients in both groups (p>.05). Among the other nine outcomes, the greatest degree of difference was measured for the 6,0-mm coma (? = -0.235), but there was no statistically significant difference. The visual and refractive graphs showed similar results, with the exception of the treated astigmatic axis, which was more accurate in the T-CAT group (p = .01).

Conclusion:
Our study found no evidence of a marked difference in the effectiveness of the correction of myopia with or without astigmatism between the T-CAT and the Custom-Q ablation methods.

Keywords:
femtosecond lasik, femtolasik, topography-guided lasik, asphericity-guided lasik, femtolasik, TCAT, Custom-Q, Contoura

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(RE) RETINA AND VITREOUS

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

36. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Denise Pardini Marinho - PG0 DO
Advisor: Mauricio Maia
e-mail: denise.pardini.marinho@gmail.com
CEP Number: 0575/2020

5. ABSTRACT (REQUIRED):

Title: Clinical and refractive outcomes of pars plana vitrectomy and secondary implantation of intraocular lens using four-point polytetrafluoroethylene scleral suture

Author and Co-authors: Denise Pardini Marinho MD, Luiz Filipe Lucatto MD, Octaviano de Magalhães Junior MD, André Maia MD, Karim Hammamji MD, Ali Diran MD, Flavio A. Rezende MD, Bruna Trench Maia, Michel Eid Farah MD PhD and Maurício Maia MD PhD

Purpose:
Evaluate clinical and refractive outcomes of the scleral fixation of the Akreos A060 IOL (Bausch & Lomb, Rochester, NY) with Gore-Tex suture (WL Gore & Associates, Newark, DE) after vitrectomy via pars plana (PPV).

Methods:
This is a retrospective, observational study of 101 eyes of 97 patients who underwent PPV and secondary Akreos implantation sutured with Gore-Tex, between May/2017 and April/2020, in four tertiary eye care centers in Brazil and between January 2015 and January 2018 at the Centre Hospitalier de l'Université de Montréal or Hôpital Maisonneuve-Rosemont in Canada. The inclusion criteria were patients with aphakia and absence of capsular support who completed a minimum follow-up of 3 months after surgery. The primary outcomes were visual acuity, refraction, number and type of complications.

Results:
Eyes were followed, on average, for 12.6 months (range: 3-38 months). The syndromic diagnoses that led to the indication of scleral fixation of IOL were: (i) Aphakia with poor capsular support, (ii) subluxated IOL, (iii) ectopia lentis, (iv) IOL luxated into the vitreous cavity, (v) ocular trauma and (vi) opacified IOL. Logarithm of the minimum angle of resolution of visual acuity improved to 0,50 or better postoperatively (p'<'0,001). Postoperative complications occurred in 35 eyes (34,7%), of which encompassed manly, corneal edema (34.7%), ocular hypertension (17.8%), hypotony (16.8%), cystoid macular edema (10.9%) and vitreous haemorrhage (7.9%). There were no cases of endophtalmitis or IOL opacification.

Conclusion:
Aphakia correction with four-point scleral fixation with polytetrafluoroethylene suture combined with PPV is a safe and effective procedure. Innovations in the technique have helped to reduce the main post-surgical complications. Patients had great improvement in vision and most complications could be addressed with topical treatment or minimally invasive approach.

Keywords:
Gore-Tex, secondary intraocular lens, four-point scleral fixation.

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(RE) RETINA AND VITREOUS

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37. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Natasha Ferreira Santos da Cruz - PG1 DO
Advisor: Michel Eid Farah
e-mail: natasha_cruz27@hotmail.com
CEP Number: 128066196

5. ABSTRACT (REQUIRED):

Title: Effect of syringe flickage in intravitreal injection of Aflibercept: A randomized double blind clinical trial

Author and Co-authors: Natasha Ferreira Santos da Cruz, Murilo Ubukata Polizelli, Gustavo Barreto Melo, Felipe Picanço Muralha, Octaviano Magalhães, Mauricio Maia, Michel Eid Farah

Purpose:
Noninfectious endophthalmitis may be misdiagnosed, leading to serious clinical implications. So far, its causative factors remain unknown. Therefore, this study assessed the role of agitation of the syringe in the development of inflammation after intravitreal injection of Aflibercept.

Methods:
A randomized, double-blind, controlled clinical trial included subjects with an indication of intravitreal antiangiogenic therapy prior to vitrectomy for proliferative diabetic retinopathy. Aflibercept was injected 48 hours before surgery. Control group received the injection without agitation while the intervention group was injected with a previously agitated syringe by flicking either with a siliconized (SR) or with a silicone-oil free syringe. The primary endpoint was the presence of anterior chamber (AC) cells, assessed at baseline and 48 hours later.

Results:
Forty-two individuals were included (21 in the both agitation and no-agitation groups). None of the included eyes presented baseline signs of AC cells, hyperemia or pain complaint. Thirty percent of the eyes in the agitation and 18% in the no-agitation group developed inflammation with the silicone-free syringe (P= 0.450) while 80% of the eyes in the agitation and 10% in the no-agitation group developed inflammation with the silicone-free syringe (P= 0.002). Inflammation was clearly linked to agitation of a siliconized syringe.

Conclusion:
This clinical trial discloses a potential role of agitation in the development of inflammation after an intravitreal injection of aflibercept. These findings have an important clinical implication for all healthcare practitioners who perform injection

Keywords:
intravitreal injection; silicone oil; syringe; uveitis

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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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(UV) UVEITIS
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THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

38. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Bruna Ferraço Marianelli - PG1 DO
Advisor: Juliana Maria Ferraz Sallum
e-mail: brunaf_mari@hotmail.com
CEP Number: 70005505

5. ABSTRACT (REQUIRED):

Title: Ocular and Neurological Findings in a cohort of Brazilian patients with Spinocerebellar Ataxias

Author and Co-authors: Bruna Ferraço Marianelli, Flávio Moura Rezende Filho, Mariana Vallim Salles, José Luiz Pedroso, Orlando G. Barsottini, Juliana Maria Ferraz Sallum

Purpose:
The main goal was to describe the ocular findings of Brazilian patients diagnosed with spinocerebellar ataxias (SCAs) variants. The secondary objetive was to describe neurological findings of this cohort and to correlate our data with the literature.

Methods:
Observational study. CEP number 54042316.7.0000.5505. Exclusion criteria were co-occurring retinal diseases, glaucoma, high refractive errors. We enrolled 73 patients with clinically established and molecularly confirmed SCAs (11 were SCA2, 42 were SCA3 and 20 were SCA7 patients), evaluated from 2013 up to 2017. Patients underwent anterior and posterior segment evaluation by slit lamp and fundus examination, color fundus photography and spectral domain optical coherence tomography (SD-OCT). Detailed neurological examination were performed in a subset of participants, including Scale for the Assessment and Rating of Ataxia (SARA) and the International Cooperative Ataxia Rating Scale (ICARS).

Results:
The main ocular finding of SCA2 and SCA3 patients was a reduction in the retinal nerve fiber layer thickness, which was observed in 45,45% of the SCA2 and 40,48% of the SCA3 participants. None of those patients presented abnormalities in optic disc cupping and/or intraocular pressure. All patients from the SCA7 subgroup presented signs of a cone-rod retinal degeneration. The constellation of fundus photos and OCT findings included: abnormal macular pigmentation, macular atrophy, optic disc palor and peripheral confluent atrophic lesions.

Conclusion:
SCAs are an heterogenous group of autosomal dominant inherited neurodegenerative diseases. The ocular phenotype varies among the different subtypes of the disease. SCA2 and SCA3 patients exhibit a reduction in retinal nerve fiber layer thickness, while SCA7 comprises a degenerative retinopathy characterized by a cone-rod dystrophy phenotype. Besides working as valuable diagnostic clue in individuals with SCA, those ocular findings may be applied in future research protocols in order to further investigate the natural history of the disease and the response to therapeutic interventions in clinical trials.

Keywords:
spinocerebellar ataxias, retinal degeneration, optical coherence tomography

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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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Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

39. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Luiz Fernando Teixeira - PG1 DO
Advisor: Juliana Maria Ferraz Sallum
e-mail: luizfteixeira@hotmail.com
CEP Number: 0854/2019

5. ABSTRACT (REQUIRED):

Title: Second and third courses of Superselective Intra-Arterial Chemotherapy for treatment of recurrence in retinoblastoma eyes.

Author and Co-authors: Luiz Teixeira1,2, José Roberto Fonseca2, Carla Macedo2, Monique Mangeon 1,2, Bruna Morales2, Juliana M F Sallum,1 1Department of Ophthalmology - UNIFESP, São Paulo, Brazil. 2Pediatric Oncology Institute - UNIFESP, São Paulo, Brazil.

Purpose:
To evaluate the use of second and third courses of superselective intra-arterial chemotherapy (SIAC) for retinoblastoma eyes that failed the first course.

Methods:
Retrospective interventional study approved by the institutional review board. Eyes treated with a second or third course of SIAC were analyzed. For the new courses one to three different drugs were used (Melphalan (M) 3,0-7,5mg, Topotecan (T) 0,3-1,0mg, Carboplatin (C) 20-40mg) as necessary. Adjuvant therapy was used as needed to consolidate treatment. Recurrence of tumor was considered after 3 months of the last cycle of the previous course.

Results:
From 157 eyes of 138 patients treated with SIAC, 134 eyes (85%) were saved at the end of the first course of chemotherapy. 33 eyes of the saved group (25%) presented recurrence of lesions that needed a second or third courses of SIAC during follow up. The eyes were classified using the International Classification of Retinoblastoma before any treatment as group B n=3(9%), group C n=3(9%), group D n=22(67%) and group E n=5(15%). After the second course of SIAC 28 (85%) eyes were saved. From the 28 saved eyes 5 (18%) had a new recurrence and needed a third course of SIAC. Only one eye was enucleated in this group (20%). At a mean follow up of 31 months (median 29, range 7-76 months) all patients are alive with no metastatic disease, extra-ocular extension or secondary leukemia. No neurological complications were reported. 26 eyes (82%) were preserved, 22 eyes after second course and 4 eyes after the third course. No eye was enucleated by a complication related to the SIAC. A mean of 5 cycles per eye (median 5, range 3-10 cycles) for the group with two courses of SIAC and a mean of 7,6 cycles per eye (median 7, range 5-12 cycles) for the group with three courses were used. T+M+C combined were used in 64% of the eyes and T+M in 33%.

Conclusion:
The use of second or third courses of SIAC for recurrent retinoblastoma after first course showed successfully results in our experience. Most of the eyes were saved (82%) with no important side effects.

Keywords:
retinoblastoma

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Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

40. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Mariana Matioli Da Palma - PG1 DO
Advisor: Juliana Maria Ferraz Sallum
e-mail: marimatioli@gmail.com
CEP Number: 11910071

5. ABSTRACT (REQUIRED):

Title: The silent variant in the CHM gene causes an aberrant splicing and classic choroideremia phenotype

Author and Co-authors: Mariana Matioli da Palma, Fabiana Louise Motta, Caio Perez Gomes, Mariana Vallim Salles, João Bosco Pesquero, Juliana Maria Ferraz Sallum

Purpose:
It is to elucidate the pathogenicity of the silent variant c.1359C>T, p.(Ser453=)) found in choroideremia. According to the Human Gene Mutation Database, more than 280 variants in the CHM gene have already been associated with choroideremia. The majority of the mutations are null, either through deletions or nonsense mutations. The silent variant is uncommon.

Methods:
Ophthalmological testing such as color fundus photography, autofluorescence (FAF), spectral-domain optical coherence tomography (OCT), and microperimetry (MAIA) were performed. The subjects? total RNA was extracted from peripheral blood cells. cDNA was synthesized and the amplification between exon 10 and 14 of the CHM mRNA was performed. The amplification products were sequenced by Sanger sequencing and the results were aligned to the reference sequence.

Results:
The silent variant c.1359C>T p.(Ser453=) in the CHM gene is associated with an error in mRNA processing, leading to an aberrant transcript without exon 11 (p.(Gln451Phefs*3)). The patient with this variant had a classic choroideremia phenotype and also a carrier daughter. He complains of nyctalopia since childhood. His best-corrected visual acuity was 20/50 and 20/80. The fundus exam showed diffuse retinal atrophy and depletion of choriocapillaris with scleral exposure. FAF imaging showed preserved islands of autofluorescence, including the fovea in the right eye, and bellow the fovea in the left eye. These areas were surrounded by an extensive hypoautofluorescence that corresponded to RPE loss. The MAIA microperimetry showed good fixation stability bilaterally and severe loss of retinal sensitivity. The OCT confirmed extensive outer retinal degeneration with outer retinal atrophy and diffused thinning of all retinal layers. The choroidal vessels were thin in the right eye and even thinner in the left eye.

Conclusion:
Molecular and clinical findings provide evidence that c.1359C>T in CHM should be considered disease-causing, and patients with that should be considered for future CHM-therapies.

Keywords:
choroideremia, aberrant splicing, synonymous variant

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(TU) TUMORS AND PATHOLOGY

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THEME:

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

41. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Carmen A. Baptista da Luz Pessuti - PG1 DO
Advisor: Rubens Belfort Jr.
e-mail: luz.pessuti@unifesp.br
CEP Number: 2198149

5. ABSTRACT (REQUIRED):

Title: Characterization of Extracellular Vesicles purified from plasma, aqueous humor and vitreous from patients with uveal melanoma.

Author and Co-authors: Carmen Luz Pessuti1, Deise Fialho da Costa1,2, Kleber Ribeiro1, Thupten Tsering3,Heloisa Nascimento1,Alessandra G. Commodaro1, Ana Claudia Torrecilhas2, Rubens N. Belfort1, JuliaValdemarin Burnier3, Rubens Belfort Jr1and Miguel N. Burnier Jr3

Purpose:
The major objective was characterize extracellular vesicles (EVs) purified from plasma, aqueous humor (AH) and , vitreous humor (VH) from patients with uveal melanoma(UM) and cataract

Methods:
AH, VH and plasma were collected from patients with UM (N=7) and AH and plasma from patients with cataract (control group N=7) at the Department of Ophthalmology, UNIFESP/EPM, Brazil.. All patients were clinically evaluated. The EVs were isolated using the exoRNeasy Serum/Plasma Maxi Kit membrane affinity column method (Qiagen, Valencia, CA, USA) and size (nm) and concentration (particles/mL) were measured using Nanoparticles Tracking Analysis (NTA).Western

Results:
NTA data showed that mean size of EVs in VH, AH and plasma samples of UM patients was 232 nm, 226 nm and 220 nm respectively. No differences were observed compared to cataract patients (238 nm and 250nm in ,AH and plasma-derived EVs, respectively). The mean concentration of EVs in VH from UM patients (6.6 x 1010 particles/mL) was higher compared to plasma (2.7 x1010particles/mL) and AH (9.9 x 109particles/mL) (P'<' 0.05). Differences were noticed in the concentration of EVs from plasma and AH from UM patients compared to cataract patients (4.1 x 108 and 6.7 x108particles/ml in plasma and AH, respectively) (P'<' 0.05). WB was performed with VH, AH and plasma-derived EVs samples from patients with UM and expression of CD63 was increased. UM-derived EVs had also high expression for TSG101 in VH and plasma, but not in AH. Plasma-derived EVs from cataract patients had high expression to CD63 and TSG101, but.AH-derived EVs in this group showed low expression for both markers. Proteomics analysis revealed hundreds of EV-derived proteins in each sample. Proteins counts were approximately 285-315 in plasma, 129-277 in AH and 199-367 in VH

Conclusion:
This is the first study to successfully identify and characterize EVs in aqueous humor, vitreous humor and plasma from patients with uveal melanoma. The results are promising to find a biomarker (EVs) in patients with uveal melanoma.

Keywords:
Uveal melanoma,Liquidbiopsy,Proteomic analysis,.Aqueous Humor, Vitreous Humor, Extracellular vesicles,;.

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(BE) OCULAR BIOENGINEERING

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THEME:

Infeccion
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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

42. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Ana Luiza Fontes De Azevedo Costa - PG1 DO
Advisor: Paulo Schor
e-mail: luizafacosta@hotmail.com
CEP Number: 1326/2016

5. ABSTRACT (REQUIRED):

Title: In search for disambiguation: How to identify eye drop bottles and multi eye drop users perceptions of new technology to avoid mix-up

Author and Co-authors: ANA LUIZA FONTES DE AZEVEDO COSTA, THIAGO GONÇALVES DOS SANTOS MARTINS, PAULO SCHOR

Purpose:
To develop prototypes of eyedrop bottle sleeves suitable for common eyedrops in order to facilitate the identification of eyedrops.

Methods:
The sleeves are made of flexible material with different textures and odors adaptable to most eyedrop bottles available on the market nowadays. We randomly selected 31 healthy volunteers to participate in a test which consists on presenting four different eyedrop bottles in four different situations. First we presented the regular eyedrops for the volunteers to have contact with. Then they were blindfolded and asked to identify the different eyedrop bottles. After that, we presented the same eyedrop bottles, now with the different texture sleeves on, and they had to identify each one while blindfolded. Then we presented the eyedrop bottles with the different odor sleeves, blindfolded them and asked them to identify. Last of all, we presented the four eyedrops with texture and odor sleeves for them to identify while blindfolded.

Results:
From the total of 31 volunteers, 42% were men and 58% women, aged from 20 to 90 years old. The success rate of identification without the sleeves was 19%, and went up to 94% with the sleeves with different odors, 97% with different textures and 99% with both. Patients preferred the special sleeves with textures (58%) rather than just with odors (6%) or both (36%).

Conclusion:
The use of the special sleeves with textures and odors increased the chance of identifying the eyedrop bottles. Using the intact senses of patients with visual problems could help avoid eyedrop misidentification, a practice common not only for patients with visual impairment, but also for patients who use more than one eyedrop.

Keywords:
colírio, solução oftalmológica, confusão, uso indevido, capas, multissensorial, odores, texturas, segurança

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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Deadline: 10/2020

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Abstract should contain:

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Co-authors (maximum 6)
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Methods
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Keywords

43. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Ibraim Viana Vieira - PG1 DO
Advisor: Wallace Chamon
e-mail: ibraim@gmail.com
CEP Number: Stanford

5. ABSTRACT (REQUIRED):

Title: Characterization of a micro intraocular projector for corneal blindness

Author and Co-authors: Vieira, I. V., Shim, S. Y., Gong, S., Fan, V. H., Rosenblatt, M. I., Al-Qahtani, A. F., Sun, M. G., Zhou, Q., Kanu, L., Yu, C. Q

Purpose:
Corneal opacity is a leading cause of reversible blindness worldwide. An electronic corneal prosthesis,or micro intraocular projector, could potentially restore high-quality vision without need for corneal clarity.

Methods:
Four intraocular projection systems were constructed from commercially available electronic components and encased in biocompatible plastic housing. They were tested for optical properties, heat dissipation, waterproofing, and accelerated wear. A surgical implantation technique was developed.

Results:
Intraocular projectors were produced of a size that can fit within the eye. Their optics produce better than 20/200 equivalent visual acuity. Temperature testing demonstrated less than 2°C increase in temperature after 1 h. Three devices lasted over 12 weeks under accelerated wear conditions. Implantation surgery was demonstrated via corneal trephination insertion in a cadaver eye.

Conclusion:
This is the first study to demonstrate and characterize fully functional micro intraocular projection systems. This technology has the potential to be an important new tool in the treatment of intractable corneal blindness.

Keywords:
cornea, corneal, blindness, bioengineering, keratoprosthesis, intraocular, implant, projector, projection

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(RE) RETINA AND VITREOUS

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ANGIOGENESIS

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

44. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Diego Lisboa Araújo - Fellow
e-mail: diego_lisboa10@hotmail.com
CEP Number: CEUA-9224

5. ABSTRACT (REQUIRED):

Title: Efficacy and safety of new anti-angiogenic drugs derived from heparinomimetics for neovascularization of choroid in animal model

Author and Co-authors: Diego Lisboa Araujo, Alex Treiger Grupenmacher, Bianca Oliveira Augusto, Vinicius Kniggendorf, Juliana Luporini Dreyfuss, Caio Vinicius Saito Regatieri.

Purpose:
Choroidal neovascularization lead to severe visual impairment and affect the quality of life worldwide. Many drugs are currently being studied as potential targets, and chemically modified heparins (mHEP) have shown promising anti-angiogenic proprieties. This study aims to test the efficacy of a mHEP as an antiangiogenic factor in vivo using a model of laser induced choroidal neovascularization in rats.

Methods:
A mHEP developed in the Molecular Biology Division of Unifesp previously underwent in-vitro testing such as cell proliferation, cell viability, migration and adhesion assays which showed no toxicity and potential therapeutic action. Zucker male pigmented rats will be divided into 4 different groups: a control group (placebo) and three different concentrations of a mHEP. Choroidal neovascularization will be induced in the animal with the use of diiode green laser causing Bruch?s membrane thermal rupture. The rats will be then injected. Animals will be euthanized and the eyes removed and fixed in formaldehyde. An "eye-cup" model of choroid will be created and anti-vegf immunofluorescence applied to the specimens. Visualization in fluorescence microscopy of the choroidal neovascularization networks will be performed and measured using ImageJ software.

Results:
Research in progress.

Conclusion:
We expect to record inhibition of the neovascularized network growth in the eyes treated with mHEP in comparison to the control group.

Keywords:
choroidal neovascularization; angiogenesis; modified heparins; antiangiogenic.

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(RE) RETINA AND VITREOUS

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(US) OCULAR ULTRASOUND

THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

45. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Luciana Arrais - Fellow
e-mail: lucianaarraismed@gmail.com
CEP Number: -

5. ABSTRACT (REQUIRED):

Title: Impact assessment of treatment interruption for diabetic macular edema with antiangiogenic therapy resulting from the COVID-19 pandemic in a public hospital in Brazil

Author and Co-authors: Luciana Arrais, MD, Zaira F. M. Nicolau, MD, Dante Akira Kondo Kuroiwa, MD Flávio de Ávila Fowler, MD, Nikoly Tigani Fares, MD, Fernando Korn Malerbi, MD, Octaviano Magalhães Júnior, MD.

Purpose:
To assess the impact on visual impairment of interrupting treatment of diabetic macular edema with intravitreal injection of anti-vascular endothelial growth factor (anti-VEGF) during the COVID-19 pandemic.

Methods:
Fifty-four eyes of 43 patients with diabetic macular edema who had intravitreal anti-VEGF injections canceled due to the need to suspend elective procedures during the COVID-19 pandemic were retrospectively evaluated. Data such as visual acuity and macular thickness measured with spectral domain optical coherence tomography (SD- OCT) were noted. These patients were subsequently summoned to resume treatment and underwent SD-OCT and ophthalmologic exam. Additionally, they were questioned about personal perception of visual deterioration and diabetes control, and information about number of injections lost, number of previous injections, previous retinal panphotocoagulation and treatment duration was collected. A comparison between collected data and statistical analysis was performed with the aim to finding risk factors for worse visual and anatomical outcomes.

Results:
IN PROGRESS

Conclusion:
We expect to find a visual and anatomical worsening in patients due to treatment interruption. The risk factors associated with worse progression must correspond to worse glycemic control, more missed injections and longer treatment duration. It is also expected to find a better outcome in patients with evidence of previous retinal panphotocoagulation due to less vascular endothelial growth factor.

Keywords:
diabetic macular edema; anti-vascular endothelial growth factor; COVID-19 pandemic; treatment interruption; macular thickness

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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

3. **THEME: (REQUIRED**)
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Co-authors (maximum 6)
Purpose
Methods
Results,
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Keywords

46. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Alex Treiger Grupenmacher - PG1 DO
Advisor: Caio Regatieri
e-mail: agrupenmacher@gmail.com
CEP Number: 990022081

5. ABSTRACT (REQUIRED):

Title: Efficacy of new anti-angiogenic drugs derived from heparinomimetics for choroidal neovascularization in an animal model

Author and Co-authors: Alex Treiger Grupenmacher M.D, Bianca O. Augusto, Vinicius Kniggendorf M.D, Diego Lisboa Araujo, M.D Juliana L. Dreyfuss, Pharm.D., Ph.D, Caio V. S. Regatieri M.D, Ph.D

Purpose:
Choroidal neovascularization is a common endpoint in key retinal pathologies, such as Diabetic Retinopathy and Age-related Macular Degeneration, with great clinical and social burdens worldwide. Many drugs are currently being studied as potential targets, and chemically modified heparins (mHEP) have shown promising anti-angiogenic proprieties. This study aims to test the efficacy of a mHEP as an anti-angiogenic factor in an animal model.

Methods:
16 Zucker male pigmented rats were divided into 4 different groups: control group, 0,05mg/mL mHEP, 0,5mg/mL mHEP and 5,0 mg/mL mHEP. Choroidal neovascularization was induced in the animal with the use of argon green laser causing Bruch`s membrane thermal rupture. Animals were then injected with different concentrations of mHEP. On day 15, animals were euthanized and the eyes removed and fixed in formaldehyde. An "eye-cup" model of choroid was created and anti-VEGF immunofluorescence applied to the specimens. Visualization in fluorescence microscopy of the choroidal neovascularization networks was performed and measures of area and perimeter were taken on ImageJ (NIH). Statistical analysis was made on Prism software using ANOVA multivariable analysis and Bonferroni?s Multiple Comparison Test for multivariate analysis. Statistical significance was set to 95% (p'<'0,05).

Results:
Both in the area and perimeter measures, analyses showed a statistical difference between the control group and the mHEP 5,0mg/mL group, but not between control group x 0,05 and group x 0,5 mg/mL and neither in comparison inside the different drug concentration groups.

Conclusion:
Negative correlation in the CNV area was found only between the 5,0mg/mL and control groups. The small sample size might account for the lack of statistical significance between other groups. Another 15 animal intervention was approved by the CEUA-UNIFESP and performed in february/2020. The analysis is not yet available due to the closing of the research facilities following the COVID-19 pandemic. Modified heparins are molecules which combine the advantage of maintaining the heparin-VEGF binding domain, whereas depriving the molecule of its anticoagulant effect, thus providing safe and efficient activity

Keywords:
neovascularization, choroidal, anti-angiogenic, angiogenesis, CNV, heparin

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Deadline: 10/2020

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

47. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Vinicius Ferreira Kniggendorf - PG1 DO
Advisor: Caio Regatieri
e-mail: vinicius_kdorf@yahoo.com.br
CEP Number: 572612071

5. ABSTRACT (REQUIRED):

Title: Prospection of new anti-angiogenic drugs based on chemically modified heparins

Author and Co-authors: Vinicius Kniggendorf, Thatiane Russo, Maria Eduarda P. Sousa, Juliana Dreyfuss, Caio Regatieri

Purpose:
Angiogenesis is the formation of new blood vessels from preexisting vasculature. Pathologic angiogenesis in the eye lead to severe visual impairment and affect the quality of life. The search for emerging therapies to treat neovascularization pointed chemically modified heparins (mHep) as good target, since in vitro studies demonstrated anti-angiogenic, anti-proliferative, anti-adhesive and anti-migratory effects on endothelial cells and no effects on ARPE-19 retinal cells viability. The purpose of this study is investigate the anti-angiogenic effect of chemically modified heparins (mHep) in vivo using a model of laser induced choroidal neovascularization in rats.

Methods:
N-desulfated Re-N-acetylated (N-DRN) with no anti-coagulant or hemorrhagic effects was the mHEP used in vivo study. Choroidal neovascularization was induced in rats (28 eyes) with laser (532nm Green Argon Laser). Four lesions, located at the 3, 6, 9 and 12 o?clock meridians centered on the optic nerve, were created using a power of 150 mW, spot size of 100 ?m and duration of 100 ms. Immediately after the laser, the rats were injected with N-DRN using a microseringe. They were assigned to experimental groups according to the dose: 100 ng/ml, 1000 ng/ml and balanced salt solution (control). Euthanasia was perform 14 days after laser, eyes were enucleated and prepared for immunofluorescence with anti-Von Willebrand factor and anti-Goat (Alexa 488).After confocal microscope analysis, the neovascular membrane was measured with ImageJ.

Results:
The mean neovascular membrane area was 70.532.264 unit of length (ul) in control group, 56.667.680ul in group 100ng/ml and 58.776.730ul in group 1000ng/ml. The area analysis demonstrated a significant difference between groups, the mean difference in control versus 100ng/ml was 13.864.584ul (p=0.006), while control and 1000ng/ml was 11.755.534ul (p=0.031). The perimeter was also analyzed, the mean difference was 84560ul in control vs 100ng/ml (p= 0.035), while control vs 1000ng/ml difference was 77748ul (p=0.07). No statistical difference was observed in neovascular membrane density (p=0.83)

Conclusion:
In vivo studies, using choroidal neovascularization models, demonstrated that N-desulfated Re-N-acetylated mHEP is a potencial drug to treat ocular angiogenesis.

Keywords:
Angiogenesis, new therapies, modified heparins

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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

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Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

48. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Mirella Millena Carmo De Andrade - R1
e-mail: m.mirellaandrade@gmail.com
CEP Number: 0146/2020

5. ABSTRACT (REQUIRED):

Title: Eight-and-a-half syndrome: a case report

Author and Co-authors: Mirella Millena Carmo de Andrade, Leticia Sant'Ana Cardoso da Silva

Purpose:
The purpose of the presented case report is to describe a case of eight-and-a-half syndrome secondary to ischemia.

Methods:
We report a case of a 72-year-old female patient with complaint of sudden onset left facial paralysis three days ago. The patient came to our hospital from another service with a diagnostic of Bell Palsy. Her past medical history included systemic arterial hypertension and insulin-dependent type II diabetes mellitus. The extrinsic ocular motricity of both eyes presented conjugate horizontal gaze palsy, preserving only the abduction of the right eye, accompanied by a left-sided peripheral facial palsy. The general physical and neurological examination was unremarkable.

Results:
The brain magnetic resonance showed a hyperintense area in the left region of the pons, compatible with an ischemic stroke. The lesions of the pontine tegumentum region affect the medial longitudinal fasciculous (MLF), paramedian pontine reticular formation (PPRF), facial nerve, and abducens nerve nucleus. Stroke, multiple sclerosis, vasculitis, and tuberculoma are the most common etiologies.

Conclusion:
Eight-and-a-half syndrome was characterized by one-and-a-half syndrome (internuclear ophthalmoplegia and horizontal gazy palsy) with facial peripherical palsy. The complete neuro-ophthalmological examination allows the recognition of this syndrome and the precise topography of the lesion in the pontine tegumentum.

Keywords:
Eight-and-a-half syndrome; pontine stroke; neuro-ophthalmology.

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(TU) TUMORS AND PATHOLOGY

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THEME:

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

49. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Armando Coelho Brito - R2
e-mail: armandocbrito@gmail.com
CEP Number: 357409207

5. ABSTRACT (REQUIRED):

Title: Recurrence of Ocular Surface Squamous Neoplasia (OSSN) after treatment in a tertiary hospital in Sao Paulo

Author and Co-authors: Brito, AC, Matsuno, CA, Fernandes, AG, Morales, MC, Belfort, RN

Purpose:
To evaluate recurrence of Ocular Surface Squamous Neoplasia (OSSN) cases after treatment with topical chemotherapy, surgery or neoadjuvant chemotherapy at the ocular oncology outpatient clinic of Federal University of São Paulo (UNIFESP).

Methods:
A retrospective study was conducted by review of medical records of cases treated for OSSN in our service with a minimum of 1-year follow-up since successful treatment. Patients with insufficient data or loss of follow up were excluded from the analysis. Data regarding age, sex, treatment scheme, characteristics of the tumor, as location and clock hour extension were analyzed. In addition, comorbidities such as diabetes, hypertension, dyslipidemia, immunosuppression and a history of smoking or alcoholism were evaluated.

Results:
A total of 36 successfully treated participants were selected for the primary analysis from the year 2019. Most of the cases were treated with single topical chemotherapy (47,22%), followed by surgical excision (22,22%), neoadjuvant chemotherapy (13,88%) or combination of treatments (16,66%). No cases of OSSN recurrence were observed on the 1-year follow up of patients treated in 2019.

Conclusion:
No recurrences were observed in the patients treated in 2019 with 1-year follow up. Our analysis should be extended to previous years to address recurrence in longer periods of follow-up in order to investigate the effect of time since treatment and other possible factors associated with the outcome

Keywords:
ocular cancer, ocular surface squamous neoplasia, topical chemotherapy, surgical excision, recurrence

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(RE) RETINA AND VITREOUS

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Cell therapy

Deadline: 10/2020

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Abstract should contain:

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

50. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Julia Harumi Iwakura - R2
e-mail: julia.harumi.i@gmail.com
CEP Number: 2526060

5. ABSTRACT (REQUIRED):

Title: Epidemiological Evaluation of Retinopathy of Prematurity at Hospital São Paulo

Author and Co-authors: Julia Harumi Iwakura, MD, Tulio Loyola Figueiredo, MD, Nikoly Tigani Fares, MD, Nilva S. B. Moraes, MD.

Purpose:
Retinopathy of prematurity (ROP) is a multifactorial retinal proliferative vasculopathy that affects mainly, but not exclusively, preterm newborns, altering the retinal architecture and may lead to permanent visual impairment. Although preventable, ROP is still one of the main causes of childhood blindness, reinforcing the need for screening to assess the condition. Treatment includes laser photocoagulation, intravitreal injection of antiangiogenic factors, the English "anti vascular endothelial growth factor" (anti-VEGF) or even a surgical approach. The present study aims to evaluate the influence of factors related to pregnancy, childbirth, the puerperium and hospitalization in patients in the development of retinopathy of prematurity, as well as possible correlations between clinical aspects and procedures performed in the prognosis of this pathology. In this way, it will be possible to carry out an epidemiological analysis of the disease in one of the main public quaternary services in São Paulo and, in this way, provide data in order to improve the prevention and therapeutic management of the disease.

Methods:
Study design A retrospective study will be carried out of the analysis of medical records of patients with retinopathy of prematurity, seen at the maternity ward of Hospital São Paulo in the last 10 years, with evaluation of clinical information regarding maternal comorbidities, pregnancy, birth, puerperium, neonatal evaluation, hospitalizations, ophthalmological evaluations and treatments performed for ROP, if present. Sample selection Patients with gestational age less than or equal to 32 weeks and / or birth weight less than or equal to 1,500 g will be included. Newborns who died before being submitted to fundus examination for the diagnosis of retinopathy of prematurity (ROP) will be excluded. Scratchs The main risk is the breach of confidentiality of the study information, both for patients and for the institution involved. Statistical analysis The established significance value will be P '<'0.05. The software used for analysis will be SPSS Statistic version 22.0. If the variables do not represent normal distribution, using the Kolmogorov-Smirnov test, non-parametric tests will be used.

Results:
In progress

Conclusion:
In progress

Keywords:
Retinopathy of Prematurity; epidemiology

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(RE) RETINA AND VITREOUS

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Co-authors (maximum 6)
Purpose
Methods
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51. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Franklin Kuraoka Oda - R2
e-mail: oda.epm@gmail.com
CEP Number: 04024-003

5. ABSTRACT (REQUIRED):

Title: Epidemiological profile of patients with central retinal vein occlusion treated in a tertiary level ophtalmology service in São Paulo, Brazil

Author and Co-authors: Franklin Kuraoka Oda, Nilva Simeren Bueno

Purpose:
The purpose of this study is to analyze the epidemiological characteristics and clinical outcomes of patients who attended to and were treated at a specialized ophtalmology service associated to a teaching hospital in the public health system in Brazil.

Methods:
Review of medical records from patients attending the retinal vascular occlusion division with central retinal vein occlusion from 2014 to 2019. Besides demographic profile, parameters such as visual acuity, history of glaucoma, systemic hipertension, diabetes mellitus were recorded.

Results:
In progresss.

Conclusion:
In progress.

Keywords:
Retinal vascular occlusion; epidemiology

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(EP) EPIDEMIOLOGY

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Keywords

52. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Lucas Denadai - R3
e-mail: lucasdenadai89@hotmail.com
CEP Number: -

5. ABSTRACT (REQUIRED):

Title: Outcome bias in clinical trials on diabetic retinopathy: a cross-sectional analysis

Author and Co-authors: Denadai L, Mozetic V, de Barros VM, Moraes, NSB

Purpose:
The objective of this work is to evaluate the number and type of outcome bias in randomized clinical trials (RCT) on diabetic retinopathy (DR) to alert the reader about how they can be found, why this happens and how to influence the interpretation of the results.

Methods:
We performed a search of RCT on DR at PubMed published over the past five years.

Results:
Seventy RCT were included. These found underreporting of adverse events in 39 (55,7%) trials, 36 (51,4%) presented a relative measure, 27 (38,6%) report subjective outcomes, 23 (32,9%) clinical trials did not present a protocol registration, five (7,1%) only presented lack of relevance to patient and decision maker, four (5.7%) trials assessed quality of life, 13 (18.6%) do not measured visual acuity.

Conclusion:
Outcome bias in RCT on DR appeared with high frequency over the past five years. Most of them occurred due to the lack of respect for CONSORT parameters. The reader must be attentive to recognize them and know how they can influence the interpretation of the data

Keywords:
Systematic review; Diabetic retinopathy; Bias; Randomized clinical trials

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(TU) TUMORS AND PATHOLOGY

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(ST) STRABISMUS
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(UV) UVEITIS
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THEME:

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Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

53. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Carolina Ando Matsuno - Fellow
e-mail: camatsuno@gmail.com
CEP Number: 357409207

5. ABSTRACT (REQUIRED):

Title: A 3 year evaluation of the therapeutic success of Ocular Surface Squamous neoplasia in a tertiary hospital in Sao Paulo

Author and Co-authors: Matsuno, CA, Fernandes, AG, Morales, MC, Belfort, RN

Purpose:
To evaluate topical chemotherapy in monotherapy or surgery alone or with neoadjuvance success rates, need for drug exchange, and need for surgery after topical treatment at the Ocular oncology outpatient clinic of Federal University of São Paulo (UNIFESP).

Methods:
A retrospective study was conducted by review of medical records of all OSSN clinically diagnosed from 2017 to 2019. Patients with insufficient data or no follow up were excluded. Data regarding age, sex, tumor location and clock hour extension, primary treatment prescribed at our first evaluation were analyzed.

Results:
Based on 66 patients medical records review, the distribution of primary treatments: chemotherapy 62.12% (Interferon ?2b 25.76%, 5-Fluorouracil (5-FU) 21.21%, mitomycin C 15.15%), surgery 28.79%, neoadjuvant chemotherapy 9%. Most of the cases indicated for surgery as the first procedure were nodular while most of the topical chemotherapy group were flat (p = 0.008). Also, all cases indicated for topical chemotherapy affected the cornea while 74% of the cases indicated for surgery affected the cornea (p'<'0.001). The resolution analysis in response to the first treatment indicated a resolution rate of 54.55% (36/66), higher in surgery group(p=0.031). There was no statistically significant difference between the 3 different topical chemotherapy (p=0.098): 5-FU (35.71%), INF?2b (41.18%) and mitomycin (60.00%). Surgery as the first alternative have 4.8 times the chance of resolution than topical therapy as the first alternative (OR= 4.78, 95%CI: 1.19 ? 19.13, p=0.027). No response to treatment was higher in medication group (n=23), in which 14 (60.87%) had the drug changed and 9 (39.13%) undergone surgery. In surgical group, 4 patients needed adjuvant chemotherapy.

Conclusion:
Our findings show a tendency to topical chemotherapy as primary treatment in most cases of OSSN, similar to other Ocular oncology centers. No statistically significance was found regarding drug preferences. According to response rate in current literature, 5FU is of 82%, mitomycin C of 82-100%, and INF?2b of 87-100%. In our study, surgical approach showed a higher resolvability (78.95%) versus topical therapy (43.90%) probably due to nodular characteristic in this group, compared to more difuse in the last group.

Keywords:
ocular cancer, ocular surface squamous neoplasia, topical chemotherapy, primary treatment

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Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

(BE) OCULAR BIOENGINEERING

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54. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Bruna Lopes da Costa - PG0 DO
Advisor: Rubens Belfort Jr.
e-mail: brunalc1991@gmail.com
CEP Number: 30720570

5. ABSTRACT (REQUIRED):

Title: The role of the internal clock on the expression of PKM2 and its phosphorylated form: synchronizing rhythms of retinal metabolism can be a new insight to treat retinal diseases

Author and Co-authors: Costa, Bruna L.(1,2), Cabral, Thiago(2), Belfort Jr, Rubens(2), Tsang, Stephen H(1). (1)Laboratory of Stem Cells and Regenerative Medicine, Department of Ophthalmology, Columbia University, New York, New York, USA. (2)Department of Ophthalmology, Federal University of Sao Paulo, Sao Paulo, Brazi

Purpose:
The Warburg effect seen in cancer cells and stem cells can potentially describe metabolic dynamic in light-adapted rods. In light, the increased anabolic activity is mostly supported by aerobic glycolysis. The resultant production of biomolecules maintains the daily renewal of the photoreceptor outer segments. However, the rod outer segments also follow a circadian clock, in which discs are shed more at the onset of light even in the absence of light. Thus, we hypothesize that in addition to light, the circadian rhythm may modulate regulators of aerobic glycolysis and thus play a role in the shift from oxidative phosphorylation to glycolysis observed in light-adapted rods.

Methods:
To test this hypothesis, we focused on Pyruvate Kinase M2 (PKM2), a key regulator of aerobic glycolysis that was recently shown to be necessary for retinal function and survival in a preclinical model of retinitis pigmentosa. Our aim is to evaluate the role of the internal clock on the expression of PKM2 and its phosphorylated form. To this end, we collected samples from B6 wild type mice every four hours in two conditions: 12h light followed by 12h darkness versus constant darkness, and analyzed the pattern of expression of PKM2 and its phosphorylated form by immunoblotting. We also used homozygous and heterozygous BMAL full knockout mice to verify the expression of PKM2 by immunoblotting and immunohistochemistry.

Results:
Our data suggests that the circadian clock regulates PKM2 phosphorylation in the retina of B6 mice at six months of age. Interestingly, the removal of BMAL simultaneously abrogated PKM2 expression and affected both rod and cone mediated pathways in the retina. Structurally, BMAL knockout significantly decreased the thickness of photoreceptor layer and outer plexiform layer.

Conclusion:
In conclusion, our results suggest that PKM2 phosphorylation is regulated by the internal clock and that BMAL may regulates the expression of PKM2 in the mouse retina. Financial support: NIH, CAPES.

Keywords:
Aerobic glycolysis, circadian rhythms, retinal diseases

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55. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Raphael de Faria Schumann - PG0 DO
Advisor: Paulo Schor
e-mail: rschumann0101@gmail.com
CEP Number: 248512514

5. ABSTRACT (REQUIRED):

Title: Value-based Health Care Analysis in Ophthalmology

Author and Co-authors: Schumann, RF, Schor, P.

Purpose:
Propose a metric to help measure the quality of care for patients (also analyze the main factors that influence this perception) undergoing facectomy and, therefore, analyze value-based health care.

Methods:
250 patients undergoing facectomy surgery will be randomly selected at the Ophthalmology Service of Hospital São Paulo - UNIFESP and submited to a survey referring to the patient's reported experience related to the quality of care. Those patients records will be for the outcomes measurement .The research will be done 3 months after the procedure. After the data collections, statistical tests will be carried out to obtain the main factors that influence the patient's reported experience and the surgical outcomes.

Results:
We have taken data from 244 patients' records and we we extracted epidemiological data for analysis. Female patients are 52,86%, São Paulo is city of residence of 71 patients.

Conclusion:
Most of the patients who underwent cataract surgery are female , living in the city of São Paulo, married and aged 65 and to 70years.

Keywords:
value-based, cataract, healt-care, VBHC

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56. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Augusto Alves Pinho Vieira - PG1 DO
Advisor: Caio Regatieri
e-mail: augustovieira.med@gmail.com
CEP Number: 334117011

5. ABSTRACT (REQUIRED):

Title: Safety and efficacy analysis of a PAMAM-dendrimer-dextranconjugated polymer as a slow-release delivery device for anantiglaucomatous drug in an animal model

Author and Co-authors: Augusto Vieira, Luísa Mendonça, Bruna Fetter Juliana L.Dreyfuss,Caio Regatieri

Purpose:
assess the safety of a PAMAM-G5 dendrimer-dextranconjugated polymer (Poliamidoamine generation five dendrimer - developed atMassachusetts Institute of Technology3 forsubconjunctival use and to analyze its efficacy as a carrier of dorzolamide, evaluatingwhether the polymer prolongs the aforementioned drug bioavailability in an animalmodel.

Methods:
the PAMAM dendrimer-dextran conjugated polymer was incorporated into ARPE-19 cell culturemedium and was compared to a control group using the MTT cellproliferationassay to determine cell viability and proliferation.New Zealand male albino rabbits (n=3):In the rabbit?s right eyes, we performed a subconjunctival injection of 0.250 ml of dendrimer-dextran,using a delivery system of twin syringes, one containing 15% dendrimer and the other containing 7,5%dextran, with a mixing tip and a 26G needle. In the left eyes (controls), we performed a subconjunctivalinjection of 0,250 ml of balanced salt solution (BSS).Ongoing study: New Zealand male albino rabbits (n=10)In five rabbit?s right eyes, we performed a subconjunctival injection of 0.125 ml of dendrimer-dextran,using a delivery system of twin syringes, one containing 15% dendrimer and the other containing 7,5%dextran, with a mixing tip and a 30G needle. In the left eyes of five rabbits (controls), we performed asubconjunctival injection of 0,125 ml of balanced saltlution(BSS).conjugated polymer efficacy as a drug delivery system for dorzolamide injected in thesubconjunctival site

Results:
after spectrophotometry analyses, there was no significant difference between thecellular viability of ARPE-19 cells exposed to the dendrimer-dextran medium compared to control(18.25% vs 18.05%).OCT, retinography and biomicroscopy:The results showed no evident differences between eyes which underwent subconjunctival infection ofthe polymer and controls both in the pilot toxicity study group (N=3) and in the new toxicity groupcomprising 10 rabbits

Conclusion:
Multispecialty teams are key to develop such devices and, consequently accomplish the so desired, but still unmet, challenge of promoting a safe, cost-effective and long-lasting drug-delivery system for the eye.

Keywords:
glaucoma treatment drug delivery dendrimer

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Methods
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57. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Vanessa Manchin Favaro - Technician
e-mail: vm.favaro@gmail.com
CEP Number: 04039-032

5. ABSTRACT (REQUIRED):

Title: Evaluation of prototype printing of national 3D Cbot bioprinter for tissue engineering.

Author and Co-authors: Vanessa Manchim Favaro, Rafael Balthazar Ferrari, Denys Emílio Campion Nicolosi, Vagner Rogério dos Santos.

Purpose:
The aim of the study was the standardization of the national 3D Cbot bioprinter prototype printing for tissue engineering.

Methods:
We used the Cbot 3D printer (Wietech) and the Nivea cream as product. The standardization variables utilized were: Nivea cream viscosity, needle diameter (16G, 18G, 21G and 22G), print speed, filament diameter, nozzle diameter, layer thickness. The standardization phases were: creation of a 3D cylinder model using Matter Control 2.0 software, connect the 3D printer with the software, slice the 3D model, monitoring of the 3D printing, registration of the final product.

Results:
The initial results of the prototype show that the viscosity of the Nivea cream was above 300,000 cp with a torque of 99% and temperature of 24.7°C. In addition, the print speed for the 16G, 18G and 21G needles was 10 mm/s and for the 22G needle it was 5 mm/s. The filament diameter for each needle was 1.1 mm (16G), 1.07 mm (18G), 1.05 mm (21G) and 1.06 (22G). The nozzle diameter was 1.3 mm (16G), 1.0 mm (18G), 0.8 mm (21G) and 0.7 (22G). The layer thickness was 0.8 mm (16G), 0.6 mm (18G) and 0.5 mm (21G and 22G). Moreover, the 4 needles used showed the same results as the following parameters: Fill Density (100%), Infiil type (concentric), First layer (200%) and room temperature.

Conclusion:
Taken together, the results show that the product is too viscous for the viscometer utilized. In addition, for all needle diameters utilized, the printing product showed stable over time with uniform layers. Therefore, other tests are necessary to continue our protocol.

Keywords:
3D bioprinting; 3D bioprinter; viscosity; prototype; tissue engineering

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Purpose
Methods
Results,
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58. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Dante Akira Kondo Kuroiwa - Fellow
e-mail: akira.epm78@gmail.com
CEP Number: 7936514

5. ABSTRACT (REQUIRED):

Title: Giant retinal tear in a university referral center

Author and Co-authors: Dante Akira Kondo Kuroiwa, Luciana Arrais, Mauricio Maia

Purpose:
Giant retina tear (GRT) is characterized by a circumferential retinal tear that is more than 90 degrees in length. Surgery in these cases is extremely challenging. Pars plana vitrectomy (PPV) is considered the treatment of choice of cases of GRT, but several authors recommend the association with scleral buckle and phacoemulsification to facilitate the vitrectomy of the vitreous base. This study aims to evaluate visual and anatomical outcomes of GRT repair at a single university referral center.

Methods:
This study was a retrospective case series. We included patients aged 18 years old or older with the diagnosis of giant retinal tear that underwent surgical repair between 2013 and 2018 at Federal University of São Paulo. Presented characteristics including visual acuity before and after the surgery, extension of the giant retinal tear and retinal detachment (RD), surgical technique used, type of intraocular tamponade used, presence of re-detachment were recorded in an Excel table of statistical analysis later. Patients were excluded from the study if they had previous retinal surgery, history of trauma, endophthalmitis or uveitis.

Results:
We included 18 patients with the diagnosis of giant retinal tear that underwent surgical repair at Federal University of São Paulo. We are performing statistical analysis of the data including epidemiology, visual and anatomical outcomes and surgical intervention performed.

Conclusion:
We expect to correlate epidemiological data found in these patients with surgical technique performed, extension of the giant retinal tear, anatomical and functional outcome at a single university referral center.

Keywords:
giant retinal tear, retinal detachment, pars plana vitrectomy

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(TU) TUMORS AND PATHOLOGY

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59. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Flávia Benchimol Ferraz - Fellow
e-mail: flavia.benchimol@yahoo.com.br
CEP Number: 372165205

5. ABSTRACT (REQUIRED):

Title: Comparation of lesion margins between Toluidine Blue 1% eye drops and Anterior Segment Optical Coherence Tomography in Ocular Surface Squamous Neoplasia

Author and Co-authors: Ferraz, FB, Fernandes, AG, Branco, AMPC, Cruz, LGI, Morales, MC, Belfort, RN

Purpose:
To compare the anterior segment optical coherence tomography (OCT) and toluidine blue eye drops in terms of tumor margins measurements in OSSN.

Methods:
A prospective study was carried out in the Ocular Oncology division from the Federal University of São Paulo (UNIFESP). To compare the lesion margins, photographs of the anterior segment were made with toluidine blue after instillation of anesthetic eye drops and, on the same day, the OCT was performed analyzing the data obtained using a scale measured by the programs ImageJ and ImageNet, respectively. Two experienced ocular oncologists blindly performed the measurements in order to avoid bias. The measurements were compared between techniques and the agreement was evaluated qualitatively through Bland-Altman graph and quantitatively through intraclass correlation (ICC).

Results:
A total of 9 patients (55.6% males) with OSSN were selected and had their lesions measured with OCT and with a picture of the anterior segment + toluidine blue. The average age was 58.47±16.64 and 4 (44.44%) were flat lesions, against 5 (55.56%) nodular lesions. Of all lesions, 2 had papilliform appearance (22.22%) and 4 had leucoplakic appearance (44.44%). The mean OCT measurement was 4.08±1.87(median:4.00, range: 0.81 to 7.37) while the mean anterior segment photo with toluidine blue measurement was 4.07±1.80 (median: 3.80, range: 1.05 to 7.26). The Wilcoxon Test shows no statistically significant difference between the two measures (p=0.9528). Bland-Altman analysis indicate a good qualitative agreement between the methods, where all the cases are within the limits of agreement from -0.3071 to 0.3244. The ICC quantitative analysis shows an almost perfect agreement of 99.67% (95% CI: 98.55 - 99.93%, p'<'0.001).

Conclusion:
Our findings showed good agreement between the two methods used to delimit tumor margins. Therefore, toluidine blue eye drops could be useful to quantify the size of the tumor and outline its margins, helping with clinical or surgical treatment, especially in low-income settings, where anterior segment OCT is not available.

Keywords:
Toluidine Blue, Anterior Segment Optical Coherence Tomography, Ocular Surface Squamous Neoplasia

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60. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Lídia Guedes Bezerra - Fellow
e-mail: lidiaguedes@hotmail.com
CEP Number: 357165204

5. ABSTRACT (REQUIRED):

Title: QUALITY OF LIFE IN PATIENTS ENUCLEATED DUE TO UVEAL MELANOMA.

Author and Co-authors: Bezerra, LG, Fernandes, AG, Morales, MC, Belfort, RN

Purpose:
Understanding the psychological and social welfare aspects of patients post treatment can be helpful to establish new support services. The purpose of this study was to investigate the quality of life (QOL) of patients enucleated due to uveal melanoma.

Methods:
Cross-sectional study performed at the Ocular Oncology division from the Federal University of Sao Paulo (UNIFESP). Patients with history of enucleation due to uveal melanoma between 2018 and 2020 were invited to answer the questionnaires NEI-VFQ 25 (National Eye Institute Visual Function Questionnaire) and HADS (Hospital Anxiety and Depression Scale). The results were analyzed in terms of sex, age, time since surgery and use of prosthesis.

Results:
15 patients (53% male) with mean age 55.8±9.9 years old were selected. Most of them had at least 6 months since surgery (53.3%) and 80% were prosthesis users. The overall QOL assessed by VFQ-25 was 72.73%, ranging from 45.30% to 94.39%. None of the co-variables were statistically associated to the overall QOL. The best results were observed on the Social functioning subdomain (94.0%) and the worse results were observed on the Driving subdomain (33.3%). We found that patients with at least 6 months of surgery have a QOL on General Vision 15% higher than those with less than 6 months since surgery (p=0.044). And patients in use of prosthesis have a QOL on Social Functioning 18.75% higher than those without prosthesis (p=0.033). When evaluating HADS questionnaire, only one (6.7%) female participant, with surgery time less than 6 months, was classified as having anxiety and depression.

Conclusion:
Over the last 25 years, 18 papers have addressed this issue, using 26 different scales, interviews, and questionnaires. In our study, we found a good quality of life of the evaluated patients and that better results were associated with longer time since surgery and prosthesis use. Financial support: none to declare

Keywords:
quality of life, questionnaire, uveal melanoma

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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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(TU) TUMORS AND PATHOLOGY
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THEME:

Infeccion
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Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

61. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Murilo Ubukata Polizelli - Fellow
e-mail: murilopolizelli@gmail.com
CEP Number: 1365/2019

5. ABSTRACT (REQUIRED):

Title: Comparison of choroidal thickness in normal eyes and different ocular pathologies in a Brazilian population

Author and Co-authors: Murilo U. Polizelli, Caio V. Regatieri, Vinicius F. Kniggendorf, Natasha F. S. da Cruz, César G. Almeida, Eduardo A. Novais, Eduardo B. Rodrigues MD

Purpose:
To evaluate the choroidal thickness (CT) in healthy Brazilian subjects using spectral-domain optical coherence tomography (SD-OCT) and to compare with choroidal thickness measured in Brazilian patients with diabetic macular edema (DME), neovascular age-related macular degeneration (AMD) and high myopia.

Methods:
A retrospective analysis of spectral domain optical coherence tomography (SD-OCT) images of 181 Brazilian subjects. A total of 74 eyes were included in the normal control group, 50 eyes in the nvAMD group, 44 eyes in the DME group and 13 eyes in the high myopia group. CT was measured from the posterior edge of the retinal pigment epithelium (RPE) to the choroid/sclera junction at the fovea and at 500 ?m intervals temporal and nasal to the fovea. All measurements were performed by two independent observers and were averaged for analysis. The statistical analysis and comparison were performed using Mann Whitney (unpaired t-test).

Results:
Seventy-four eyes from 74 patients with a mean age of 51.4 years were analyzed in the normal group with a mean nasal, subfoveal and temporal choroidal thickness measurements were 301.30 ± 12.86 ?m, 311.61 ± 12.62 ?m and 309.28 ± 12.28 ?m respectively. All groups with disease demonstrated a statistically significant choroidal thinning when compared with matched-aged normal eyes. The mean reduction in the nvAMD group compared to normal were 60.65 ?m nasally, 59.77 ?m temporally and 56.59 ?m at subfoveal position. In the DME group, the subfoveal reduction was 51.10 ?m, 63.03 ?m and 46.30 ?m, nasally and temporally. The patients with high myopia presented the greatest reduction in CT compared to normal eyes, with a mean reduction of 159.9 nasal, 159.98 subfoveal and 154.65 at temporal.

Conclusion:
The present study evaluated choroidal thickness in Brazilian subjects, with intense miscegenation. The results demonstrated a statistically significant decrease of the choroidal thickness in all subtypes of chorioretinal disease. The small sample size in this study was a limitation. Additional research with a larger study population to better understand these findings.

Keywords:
Choroid; Diabetic retinopathy; Macular degeneration; Myopia; Optical Coherence Tomography

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

62. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Paulo Alberto Cervi Rosa - Fellow
e-mail: paulopacr@hotmail.com
CEP Number: 0936/2019

5. ABSTRACT (REQUIRED):

Title: Evaluation of panretinal light coagulation effects in patients with diabetic retinopathy through multimodal fundus imaging

Author and Co-authors: Rosa PAC, Nakayama LF, Bergamo VC, Moraes NSB

Purpose:
To evaluate, through multimodal fundus imaging, the retinal alterations found in patients who underwent panretinal light coagulation, specially foveal avascular zone and macular choroidal thickness changes, with the aim of determining alterations in macular perfusion due to the treatment.

Methods:
Patients with indication of panretinal light coagulation due to diabetic retinopathy who accept to participate of the study will be evaluated through swept source optic coherence tomography and optic coherence tomography angiography 3x3mm and 6x6mm. Initially, 10 patients will participate of the study and will be evaluated with the fundus ancillary exams prior to the panretinal light coagulation, which will be divided in 4 sessions for each patient, and will be evaluated one more time one month after the end of the treatment. The parameters of the exams performed will then be compared through descriptive statistics, being each patient his own "control group", to evaluate alterations in macular perfusion.

Results:
This is an ongoing study in which five patients have finished the whole treatment and evaluation. Visual acuity mean was of 0,21 prior PFC and 0,24 after the treatment. Retinal thickness mean prior PFC of 334.40 micrometers (Standard Deviation (SD) of 133.76) and after of 373.80 micrometers (SD 244.96). Subfoveal Choroidal Thickness mean prior PFC was 327.20 micrometers (SD 176.47) and after PFC was 293.00 (SD 147.96). Foveal avascular Zone mean area prior PFC was 771.30 (SD 428.25) and after was 797.20 (SD 370.15).

Conclusion:
Diabetes mellitus is one of the most prevalent diseases in the world and diabetic retinopathy is one of the main causes of low vision in adults. The understanding of Diabetic Retinopathy Pathophysiology and its response to current treatments is important to increase the effectiveness of treatment and determine expected results.

Keywords:
diabetic retinopathy ; light coagulation ; retina

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THEME:

Infeccion
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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

63. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Aline Pimentel de Miranda - PG0 DO
Advisor: Mauro Silveira de Queiroz Campos
e-mail: alipimi@gmail.com
CEP Number: 1318002

5. ABSTRACT (REQUIRED):

Title: COMPARATIVE EVALUATION OF THE EYELID LYMPHATIC DRAINAGE PRE AND POST LOWER BLEPHAROPLASTY AND PRE AND POST FILLER INJECTION WITH HYALURONIC ACID IN THE LOWER LID .

Author and Co-authors: ALINE PIMENTEL DE MIRANDA MAURO CAMPOS

Purpose:
Evaluate comparatively the eyelid lymphatic drainage pre and post lower blepharoplasty and pre and post filler injection with hyaluronic acid in the lower lid and check whether there is a lymphatic dysfunction in the periorbital region after these procedures.

Methods:
Three groups of 15 consecutive patients were selected. The first group will be submitted to transconjunctival blepharoplasty, the second group to transcutaneous blepharoplasty and the third group will undergo periorbital filler injection with hyaluronic acid. The inclusion criterias are age range from 30 to 70 years, patients with dermatochalasis, bags under the lower eyelids or facial volume loss. The exclusion criterias are smoking patients, patients with diabetes, autoimmune or heart diseases or who previously underwent cosmetic treatments with fillers or lasers. Patients in each group will undergo preoperative lymphoscintigraphy 2 weeks before the procedures and 1 month after surgery or filler injection. Patients undergoing transcutaneous blepharoplasty and filler injection will recieve intradermal injections of Technetium 99mm (99m- tc) diluted in 0.1ML of 0.9% saline solution in the lower eyelid in 2 points (medial and lateral) and patients undergoing transconjunctival blepharoplasty will have the Tc-99m injected in 2 points, medial and lateral in the lower conjunctival fornice. All injections Will be performed by an ophthalmologist. After the injection, patients will be submeter to evaluation in the gamma camera scan for up to 3 hours.

Results:
It is expected a change in the pattern of the eyelid and conjunctival lymphatic drainage between the pre and postoperative.

Conclusion:
No conclusion is possible yet

Keywords:
lower blepharoplasty, chemosis, eyelid edema, filler injections, hyaluronic acid

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THEME:

Infeccion
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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

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

64. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Brunella Pavan - PG0 DO
Advisor: Rubens Belfort Jr.
e-mail: brunellapavan@hotmail.com
CEP Number: 29057600

5. ABSTRACT (REQUIRED):

Title: The use of optical coherence tomography for detection of retinal alteration by RIPE in tuberculosis treatment

Author and Co-authors: Taffner, B M P, Fowler, F A, Cruz, L G I, Nawa, C C, Savioli, M T, Rodrigues, D S, Magalhães, O, Belfort Jr, R M.

Purpose:
Primary endpoint: to evaluate, through optical coherence tomography (OCT), alterations in retinal nerve fiber layer (RNFL) and ganglion cell layer (GCL), secondary to RIPE (rifampicin, isoniazid, pyrimethamine, ethambutol) treatment. Secundary endpoint: to study correlations between computadorized campimetry and OCT changes. Also to analyse the relation between dose of ethambutol/ weight ratio to GCL thickness.

Methods:
Patients were recruited from the service of tuberculosis at Federal University of São Paulo from March 2019. CAAE:04297018.4.0000.5505. After clinical history, the following parameters were analyzed, best corrected visual acuity, OCT Triton (Topcon) and Humphrey visual field analyzer central 24.2 (Carl Zeiss) for every month during treatment and post treatment.

Results:
A total of 26 individuals were recruited. 4 patients lost follow-up, 2 died (liver cancer and liver failure). Conserning OCT, there is a decrease in the upper RNFL (p=0.0371) and in the GCL lower (p=0.0096), lower nasal (p=0.0032) and upper nasal (p=0.0241) in the month 2 compared to month 1. There is also a decrease in the upper hrs (p=0.0581), upper temporal (p=0.0610) and lower temporal (p=0.0774) GCL.? For every 1 mg increase in dose of ethambutol/ weight is observed a reduction in GCL thickness of 1.94 microns in the lower hrs (p=0.015), 1.31 microns in the lower nasal hrs (p=0.013), 0.96 microns in the upper nasal hrs (p=0.015) and 1.65 microns in the upper hrs (p=0.019). Regarding visual acuity, there is a statistically significant worsening after treatment compared to month 1 (p=0.0021). About the visual field parameters, there are no statistically significant differences in the MD (p>0.05) but there is a decrease in the PSD in the post treatment when compared to month 1 (p=0.21). Comparing with the post treatment the OCT, there is a decrease in all quadrants of RNFL: inferior (p=0.0003), nasal (p=0.0031), superior (p=0.0001) and temporal (p=0.0031).

Conclusion:
There was a significant reduction in GCL in the second month and in RNFL after RIPE treatment. There was no correlation between oct and visual field. The dose of ethambutol/ weight ratio was ?inversely proportional to GCL thickness after second month of treatment.

Keywords:
retina; tuberculosis

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THEME:

Infeccion
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Cell therapy

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FORMAT:

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

65. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Larissa Gouvea José Felicio Da Costa - PG0 DO
Advisor: Wallace Chamon
e-mail: gouveaalarissa@gmail.com
CEP Number: 69037057

5. ABSTRACT (REQUIRED):

Title: Intraoperative wavefront aberrometry versus Barrett True K formula for IOL power calculations in post-LASIK eyes

Author and Co-authors: Larissa Gouvea George Waring IV Karolinne M Rocha Wallace Chamon

Purpose:
To compare the refractive prediction error for IOL power calculations performed with the Barrett True-K formula and intraoperative wavefront aberrometry in post corneal refractive surgery eyes

Methods:
Retrospective chart review of 145 post-hyperopic or post-myopic LASIK eyes that underwent cataract surgery. IOL power calculations were performed using Barrett True-K formula and intraoperative aberrometry (ORA, Alcon). Refractive mean numerical error (MNE) and mean absolute error (MAE) of the IOL power calculation formulas were compared.

Results:
Barrett True K and ORA showed comparable values of MAE (0.57±0.54 D vs 0.54±0.50 D, $p>0.05$). The percentage of eyes with refractive prediction error outside 0.75 D, as calculated by Barrett True K and ORA, was 29% vs 26% respectively.

Conclusion:
In post corneal refractive surgery eyes, the Barrett True-K formula and ORA performed similarly.

Keywords:
intra-operative aberrometry; refractive surgery, barrett-true K formula

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Purpose
Methods
Results,
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66. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Helen Nazareth Veloso dos Santos - PG0 DO
Advisor: Caio Regatieri
e-mail: HELENVESANTOS@YAHOO.COM.BR
CEP Number: 0698/2020

5. ABSTRACT (REQUIRED):

Title: detection of diabetic macular edema and prediction of OCT measures from color fundus photographs using deep learning.

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

Purpose:
to develop a deep learning algorithm using optical coherence tomography (OCT) data to identify diabetic macular edema and correlate measures of macular thickening from color fundus photographs (CFP)

Methods:
Retrospective analysis on 3 dataset of CFP and its respective OCT macular scans of patients with diabetes type 1 or 2. The study was approved by the Ethics Committee at the Federal University of São Paulo (UNIFESP,0698/2020) and the Public Service Hospital of São Paulo (3384222070005505). The dataset will be collected from the Retina Department of São Paulo Hospital/UNIFESP (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 2021. A total of 3000 matching images are estimated. The scans will be selected by 2 OCT devices: Nidek (Nidek, Gamagori) and Spectralis OCT (Heidelberg, Engineering). First, the CFP and the OCT scans will be anonymized. Then, the quality assessment of the images will be evaluated by 2 retinal specialists. 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 according to the thickness of the central subfield thickness (CST): up to 250um (normal MT) and more than 400um (macular edema). A deep learning model (a deep convolutional neural network) trained by a transfer-learning cascade will be employed. 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 and the 95% confidence intervals will be used to assess the performance of the deep learning algor

Results:
In progress

Conclusion:
In progress

Keywords:
diabetic macular edema, deep learning, artificial intelligence, public health ophthalmology

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(GL) GLAUCOMA

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Deadline: 10/2020

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Purpose
Methods
Results,
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Keywords

67. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Janaina Andrade Guimarães Rocha - PG0 DO
Advisor: Tiago dos Santos Prata
e-mail: janainaaguimaraes@yahoo.com.br
CEP Number: 0073/2020

5. ABSTRACT (REQUIRED):

Title: DIAGNOSTIC PERFORMANCE OF OPTIC NERVE HEAD HEMOGLOBIN LEVELS MEASUREMENT IN EYES WITH PRIMARY OPEN ANGLE GLAUCOMA

Author and Co-authors: Janaina Andrade Guimarães Rocha, Tiago dos Santos Prata, Ana Luiza Bassoli Scoralick, Fábio Nishimura Kanadani, Ariel Campos Chaves, Karina Carvalho de Melo Araújo, Augusto Paranhos Jr., Carolina Pelegrini Barbosa Gracitelli, Sérgio Henrique Teixeira

Purpose:
To evaluate the diagnostic performance of the measurements of the level of hemoglobin in the optic nerve (CNO-Hb) through the ability to discriminate patients with initial glaucoma from control patients, the ability to detect glaucoma at different stages and the comparison with structural measures obtained by Spectral Domain Optical Coherence Tomography (SD-OCT) and functional alterations at Standard Automatic Perimetry (SAP).

Methods:
Patients diagnosed with glaucoma at different stages and controls will be consecutively recruited for the study. All patients will undergo a complete ophthalmologic examination, retinography, SAP, SD-OCT and analysis of hemoglobin levels in the optic nerve head using the non-invasive RetinaLyze® software (Laguna ONhE). The CNO-Hb will be analyzed in the following scenarios: 1- to discriminate patients with mild glaucoma from controls. 2-use as screening method, discriminating normal patients from patients with glaucoma at different stages. 3-correlation with functional and anatomical exams (comparison with SD-OCT and SAP). 4-comparison of the diagnostic performance of CNO-Hb with that obtained by the analysis of two general ophthalmologists.

Results:
In progress.

Conclusion:
In progress.

Keywords:
glaucoma, hemoglobin level, RetinaLyze®

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(RE) RETINA AND VITREOUS

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Methods
Results,
Conclusion
Keywords

68. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Juliana Moura Bastos Prazeres - PG0 DO
Advisor: Mauricio Maia
e-mail: juprazeres@hotmail.com
CEP Number: 1529/11

5. ABSTRACT (REQUIRED):

Title: EVALUATION OF RETINAL AND CHOROIDAL THICKNESS USING SPECTRAL DOMAIN OPTIC COHERENCE TOMOGRAPHY IN ASYMPTOMATIC SICKLE CELL PEDIATRIC PATIENTS.

Author and Co-authors: Juliana Prazeres, Luiz Filipe Lucatto, MD, Nilva Moraes, Caio Regatieri, Luiz H. Lima, MD, Maurício Maia, MD

Purpose:
To evaluate retina and choroid thickness in the macular region of asymptomatic sickle cell pediatric patients using standard SD ? OCT and EDI SD ? OCT.

Methods:
Asymptomatic children ('<'18 years old) with sickle cell disease and their race and age ? matched controls were included. All patients underwent best-corrected visual acuity (BCVA) testing, slit-lamp biomicroscopy, fundus examination and spectral domain optical coherence tomography. The macular retina and choroidal thickness were analysed from seventy-nine eyes of 40 children with sickle cell disease and 36 eyes of 18 patients of control group

Results:
There was no statistically significant retinal thinning in any of the 9-ETDRS a subfields in the group of asymptomatic pediatric patients with SCD. The choroidal thickness measurements at foveal , perifoveal and parafoveal zones was significantly lower in eyes of patients with SCD compared with race and age-matched controls. (p'<'0.05).

Conclusion:
The choroidal thickness of assymptomatic pediatric patitens with SCD was significantly thinner in all quadrants compared to age, race, and gender-matched healthy controls. No quantitative changes in retinal thickness were seen in this study, what could suggest that choroidal thinning may precede the retina changes in the course of sickle cell retinopathy

Keywords:
sickle cell anemia, choroidal thickness, retinal thickness

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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

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THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

Title
Author
Co-authors (maximum 6)
Purpose
Methods
Results,
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69. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Adriana Falcão Veloso Lyra - PG1 DO
Advisor: Walton Nosé
e-mail: adriana.falcao@unifesp.br
CEP Number: 52041345

5. ABSTRACT (REQUIRED):

Title: EVALUATION OF HIGH-ORDER ABERRATIONS IN REGULAR CORNEAS AND THEIR RELATIONSHIP WITH EPITHELIAL REMODELING IN PATIENTS SUBMITTED TO TOPOGRAPHY-GUIDED FEMTOLASIK (CONTOURA®) IN ONE EYE AND Q-VALUE CUSTOMIZED (CUSTOM-Q®) ON THE CONTRALATERAL EYE.

Author and Co-authors: LYRA, AFV, ALVES, EM, MONTENEGRO, AAL, PARENTE, NSM, CARDOSO, MT, ALVES, LMM, MAIA, CBS, FONTES, BM, NOSE, W

Purpose:
To evaluate the relationship between high-order aberrations on the corneal surface of regular corneas with the epithelial thickness on the pre and postoperative eyes after refractive surgery with the Q-value customized ablation (Custom-Q) in one eye versus topography-guided (Contoura) on the contralateral eye.

Methods:
Prospective, randomized and double-blind study, that evaluated 76 eyes.

Results:
76 eyes are included in the statistical analysis, from 38 patients (19 men), with a mean age of 26.6 years. Visual acuity of 20/20 was obtained in 97% of patients in both groups. Regarding the study of the corneal epithelium in the preoperative period, 17 sectors were evaluated for its thickness with no statistical difference between the groups in the pre and postoperative period (P>.05). There was a statistically significant difference between the groups when we compared the total cornea RMS assessed by the Zernike map of the Galilei G6 on the pre and postoperative period in the Custom-Q group (P'<'.05).

Conclusion:
The Custom-Q technique and the Contoura present different characteristics on the objective and surgical planning, which could imply a different epithelial remodeling in the postoperative period and in the amount of high-order aberrations. At 3 months from the surgery, there was no statistical difference between epithelial remodeling in the 17 quadrants assessed between the two techniques. There was a statistically significant difference between the groups when we compared the total cornea RMS assessed by the Zernike Map of the Galilei G6 on the pre and postoperative period of the Custom-Q group (P'<'.05). Since there was no difference on the epithelial remodeling between the two techniques, the difference on the RMS are probably due to the different ablation profile.

Keywords:
Contoura, corneal ablation, refractive surgery, topographic guided ablation, LASIK

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(RE) RETINA AND VITREOUS

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THEME:

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Cell therapy

Deadline: 10/2020

FORMAT:

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

70. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Carlos Eduardo de Souza - PG1 DO
Advisor: Rubens Belfort Jr.
e-mail: edusouzaa@gmail.com
CEP Number: 2990046

5. ABSTRACT (REQUIRED):

Title: ND: YAG LASER IN THE TREATMENT OF VITREOUS OPACITY: A RANDOMIZED WITH A CONTROL GROUP STUDY

Author and Co-authors: Carlos Eduardo de Souza Rubens Belfort Junior Luiz H. Lima

Purpose:
To evaluate the effectiveness of Nd: YAG laser vitreolysis for the treatment of a patient with symptomatic vitreous opacity.

Methods:
A prospective control group study, envolving sixty with vitreous opacity ,randomized into two groups: Group one: Patients treated with the technique reported below and Group two: Patient in the control group, who will be treated with minimal laser power. All patients will be submitted to all study processes, with an equal number of visits and exams. Before the procedure, patients will undergo a comprehensive eye examination, a retinography exam and answer the questionnaire (National Eye Institute Visual Functioning Questionnaire 25- NEI VFQ-25). After pupillary dilation with 1% tropicamide and topical anesthesia with proximetacaine, patients will undergo vitreolysis (LIGHTlas SLT Deux Laser® - Lightmed - San Clement, CA 92673). The power parameter will be evaluated according to the size and density of the opacity. Patients will be evaluated in postoperative days 1, 7, 15, 30 and 6 months after the procedure. In all appointments, patients will undergo a comprehensive eye examination. In the second visit (7th day), patients will do the retinography again and answer the questionnaire (NEI-VFQ 25). The results before and after the procedure will be compared statistically

Results:
In Progress

Conclusion:
In Progress

Keywords:
Vitreous opacity, Floaters and ND:Yag Laser

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Deadline: 10/2020

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Purpose
Methods
Results,
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Keywords

71. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Gabriela Assumpção B. Pereira Pelegrini - PG1 DO
Advisor: Norma Allemann
e-mail: gabriela.oftalmo@hotmail.com
CEP Number: 0655/2018

5. ABSTRACT (REQUIRED):

Title: Intravitreal dexamethasone implant (Ozurdex®) serial evaluation with ocular ultrasound.

Author and Co-authors: Gabriela Assumpção Brito Pereira Pellegrini, Arnaldo Furman Bordon, Norma Allemann.

Purpose:
To compare measurements and findings of dexamethasone intravitreal implants over time.

Methods:
Eyes submitted to intravitreal Ozurdex implants were evaluated at day 1 after implantation and every 45 days until completing 6-months period using: B-scan ultrasonography (Aviso® and Compact Touch®, Quantel Medical) and wide-field fundus photography (California®, Optos). B-scan ultrasound parameters evaluated were position and dimensions of the implant.

Results:
Twenty three eyes of twenty patients were included, 64% male. Major indication for treatment with Ozurdex® was diabetic macular edema (84%). Implant measurements varied over time: Length at Day 1 = 7.21+/-0.36mm and Final visit = 1.80+/- 0.72mm, Thickness at Day 1 = 0.78+/-0.06 and at Final visit = 0.40+/-0.14mm. Considering implant dimensions, change over time in length was more evident than in thickness. B-scan follow-up demonstrated fading of the implant's limits and lowering of the internal reflectivity. Most common location for the implants was inferior (82%). Fundus photography was able to demonstrate the implant in 79 % of the eyes evaluated.

Conclusion:
Ongoing study showed progressive decrease in the implant measurements at follow-up particularly in length. Qualitative changes of fading and lowering of internal reflectivity were detected over time. Ozurdex® intravitreal implants changes observed over time can be related to drug release.

Keywords:
Ocular ultrasonography, eye, intravitreal dexamethasone implant.

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Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

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Purpose
Methods
Results,
Conclusion
Keywords

72. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Gustavo Rosa Gameiro - PG1 DO
Advisor: Paulo Schor
e-mail: gustavo.gameiro@fm.usp.br
CEP Number: 1126/2019

5. ABSTRACT (REQUIRED):

Title: Retinal microvascular density modifications during the water drinking test

Author and Co-authors: Gustavo Rosa Gameiro, Giovana Rosa Gameiro, Michel Eid Farah, Jianhua Wang, Paulo Schor

Purpose:
The water drinking test (WDT) is a well-known stress test that increases intraocular pressure (IOP) momentarily and can indicate risk of glaucoma progression. This study focuses on correlating changes in the retinal microvascular plexus with the WDT in young healthy subjects.

Methods:
Twenty eyes of twenty healthy young subjects (mean age 24.37 ± 2.17 years) were included in this study. In our protocol, WDT consisted of drinking 1 liter of water within 5 min. Outcome measures in this prospective observational study were mean arterial pressure (MAP), heart rate (HR), IOP and retinal vessel density of both superficial and deep macular retina using optical coherence tomography angiography (OCTA), which were assessed before water ingestion and 4 times after at 15-min intervals. OCTA images were later quantified by fractal analysis (box counting [Dbox]). One-way repeated measures analysis of variance (ANOVA) was used to assess the effects of WDT on each of the parameters.

Results:
The WDT resulted in significant peak changes of the following parameters compared to baseline: IOP: 15.63 ± 3.37 vs. 18.38 ± 4.53 mmHg at 30 minutes, p'<'0.001, HR: 75.74 ± 12.23 vs. 64.95 ± 11.37 bpm at 15 minutes, p'<'0.001, deep retinal vessel density 1.758 ± 0.14 vs. 1.749 ± 0.16 at 15 minutes, p=0.040.

Conclusion:
Besides IOP elevation and systemic effects in HR, WDT is associated with temporary modifications of the deep vascular plexus in young healthy subjects.

Keywords:
Water Drinking Test, Physiology, OCTA, Imaging

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THEME:

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Imaging
Cell therapy

Deadline: 10/2020

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Abstract should contain:

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

73. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Jorge Selem Haddad Neto - PG1 DO
Advisor: Renato Ambrósio
e-mail: jshaddad2@hotmail.com
CEP Number: 1022/2018

5. ABSTRACT (REQUIRED):

Title: Comparison of Biometry Measurements Using Standard Partial Coherence Interferometry versus New Scheimpflug Tomography with Integrated Axial Length Capability.

Author and Co-authors: Jorge Selem Haddad, Eliza Barnwell, Karolinne Maia Rocha, Renato Ambrosio Jr., George Oral Waring IV

Purpose:
To compare biometry measurements obtained by a partial interferometer biometer (IOLMaster 500) to the new Scheimpflug tomography with an integrated axial length biometer module (Pentacam AXL).

Methods:
Cataract patients who underwent biometric measurements with the IOL Master 500 and the Pentacam AXL from July to November 2017 were enrolled in this study. Comparisons were performed for axial length (AL), keratometry (K), and anterior chamber depth (ACD). The Pearson correlation coefficient and the 95% limits of agreement (LoA) were calculated. Paired Student?s t-tests and Bland-Altman plots were used to assess the differences between devices.

Results:
One hundred and sixty-six eyes of 92 patients were analyzed. There were no statistically significant differences in AL (p=0.558) or flat K (p=0.196) values between the IOL Master 500 and Pentacam AXL measurements. Statistically significant differences were found between the two devices with respect to steep K, ACD, and mean K measurements (p'<'0.001).

Conclusion:
Both devices provided similar measurements of AL and flat K, though there were statistically significant differences in ACD, steep K, and mean K measurements.

Keywords:
anterior chamber depth, axial length, biometry, IOLMaster 500, partial coherence interferometry, pentacam AXL

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(CO) CORNEA AND EXTERNAL DISEASE

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Abstract should contain:

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Purpose
Methods
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74. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Júlia Gomes F. Polido Cabral - PG1 DO
Advisor: Denise de Freitas
e-mail: juliapolido@yahoo.com.br
CEP Number: 1887/11

5. ABSTRACT (REQUIRED):

Title: Correlation of the Keratometric Findings from Placido-disk and Rotating Scheimfplug in Children with Keratoconus Before and After Corneal Cross-linking

Author and Co-authors: Júlia Polido, Renato Ambrósio, Bernardo Lopes, Tais Wakamatsu, Thiago Cabral, Maria Emília Araújo, Denise de Freitas

Purpose:
To evaluate the correlation between the keratometric findings from Placido-disk and rotating Scheimfplug in children with progressive keratoconus (KC) before and after corneal cross-linking (CXL) and investigate whether these limits of agreement varied according to disease severity

Methods:
One eye each of 44 children, between 8 to 16 years, with progressive KC, receiving standard CXL protocol, was included in this prospective nonrandomized open study. Data were obtained with rotating Scheimpflug tomography and Placido-disk topography devices from preoperative and last follow up postoperative. Six parameters were measured on the anterior cornea: flat keratometry (Kf), steep keratometry (Ks), mean keratometry (Km), maximum keratometry (Kmax), corneal astigmatism (Astig) and corneal axis (Axis). Pearson correlation and agreement with the Bland-Altman method, were performed between the two devices before and after CXL.

Results:
All parameters have shown a strong positive correlation between the two devices, both before and after the CXL. Statistical significant differences between preoperative e postoperative correlation were observed in Kmax and Astig. Scheimpflug mean measurements from Kf, Ks, Km, Kmax and Astig were higher than Placido in the preoperative and this mean difference reduced between devices in the postoperative, although still higher in Scheimpflug, with the exception of Kmax and Astig. From both devices, the entirely parameters experienced reduction on their means after CXL. The 95% limits of agreement (LoA), for the preoperative period, were -1.73 to 2.60 for Kf, -1.61 to 3.03 for Ks, -1.18 to 2.01 for Km, -3.24 to 4.41 for Kmax and -2.95 to 3.49 for Astig. All these parameters decreased in the postoperative, with values for Kf -1.42 to 2.19, Ks -1.49 to 1.88, Km -1.18 to 1.76, Kmax -2.84 to 2.20 and Astig -2.07 to 1.72. When the patients were stratified into two groups according to their Scheimpflug-derived maximum keratometry, a clear difference in the agreement between Placido-disk and Scheimpflug was seen among mild e more advanced cases of keratoconus, with 95% LoA larger in KC with Kmax greater than 60 diopters. The 95% LoA were considered wide, for all parameters.

Conclusion:
Keratometry measurements using rotating Scheimfplug and Placido-disk technology are well correlated before and after CXL in pediatric group but not interchangeable. The agreement between devices were better after CXL and in mild KC.

Keywords:
corneal collagen cross-linking, pediatric, keratoconus, Scheimpflug, placido-disk

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(GL) GLAUCOMA

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75. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Marcos Pereira Vianello - PG1 DO
Advisor: Tiago dos Santos Prata
e-mail: marcospvianello@yahoo.com.br
CEP Number: 1083/2017

5. ABSTRACT (REQUIRED):

Title: Profile of outpatient followup monitoring of patients with glaucoma in the brazilian public and private health sector

Author and Co-authors: Vianello MP, Kanadani FN, Prata TS.

Purpose:
To determine and analyze the outpatient followup monitoring profile of glaucomatous patients, comparatively between the public and private health care network, in three Brazilian cities.

Methods:
The present observational cross-sectional study has been aprooved by the "Research Ethics Committees" of the participating institutions, to mention the Federal University of São Paulo, Medical Sciences College of Minas Gerais, Eye Medicine Hospital, Eye Bank of Sorocaba and Eye Clinic Dr. Reinaldo Sieiro, fulfilling the requirements of the same ones. The data collected will be anonymised and confidential. Once the criteria for inclusion and exclusion of this study are fulfilled, 100 medical records of the private health network and 100 medical records of the public network will be randomly selected in the participating institutions. With these records, an individual retrospective analysis of pre-determined datas will be done an will constitute the study database. This collected datas will be confronted by the orientations of monitoring by the "III Brazilian Consensus of Primary Open Angle Glaucoma".

Results:
All data collected will be presented in a descriptive way and compared between the groups using appropriate statistics for the sample profile. An analysis will be made of the frequency of glaucoma visits, gonioscopy, pachymetry, retinography, tonometry and visual field tests performed per year in the private and public network, compared to the recommendations of the Brazilian Society of Glaucoma In the comparative analysis with the work of Chauhan et al. (Chauhan et al., 2008), and according to the number of achromatic computerized perimetry examinations performed over time, this study may infer the effectiveness of the services in detecting progression of glaucoma by the visual field and retinography.

Conclusion:
The present study will determine the outpatient followup monitoring profile of patients with glaucoma in the involved centers and could also demonstrate the ability of these centers to detect the progression of the disease.

Keywords:
glaucoma; public health; outpatient followup; monitoring; progression; Brazil

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(RE) RETINA AND VITREOUS

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(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS
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THEME:

Infeccion
Inflammation
Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

76. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Luis Filipe Nakayama - PG1 DO
Advisor: Caio Regatieri
e-mail: nakayama.luis@gmail.com
CEP Number: 0698/202

5. ABSTRACT (REQUIRED):

Title: A Brazilian Open Access Ophthalmological Database Process

Author and Co-authors: Nakayama LF, Santos HNV, Malerbi FK, Regatieri CVS

Purpose:
Big data and AI are changing how medical care is driven. They can provide more accurate diagnosis, better follow up of medical conditions, risk classification and process optimization. Reliable datasets are one of the most important process in IA development, with a big number of entries, multiple ethnicities and with good quality labels. Data sharing is fundamental in scientific development and reliable public dataset can advance algorithms development, test and validation. Our objective is to develop a public Brazilian Open Access Ophthalmological Database.

Methods:
60000 retinal images were exported in JPEG format from retinal cameras and a screening was applied to select exams with good quality, remaining 40000 fovea centered images. In all dataset a massive crop process was applied to remove identification and went through a de-ID process. The exams were labeled by a retinal specialist and zoom/exposure were used according to readers' convenience. All images were labeled according to gender, laterality, optic disc, vessels and macula aspect, presumed pathological classifications and diabetic retinopathy classification in a CSV file.

Results:
Our group has 3.002 labeled exams with 1840 male and 1162 female patients, 1510 OD and 1492 OS exams. In macular evaluation 2114 normal and 885 abnormal, in vessels evaluation 2446 normal and 555 abnormal. In optic disc 2260 normal and 741 abnormal and in the final classification 1286 as normal and 1715 as abnormal. As diagnosis by image analysis, glaucoma suspect was the most prevalent (686) followed by drusen(490) and hypertensive retinopathy(370). In diabetic retinopathy (259), 65 classified as mild, 24 as moderate, 42 as severe, 33 as proliferative and 30 as post laser status.

Conclusion:
Open access datasets repositories could expand developing and validating algorithms, facilitating the velocity of clinical validation and establishing a benchmark for exams classification standards and subsequent data-science advancements. Our dataset has so far 3002 cropped, labeled and de identified exams, with more abnormal exams and 13 distinct fundus characteristics. After a database quality assurance more exams will be added. Our next step is to establish an international agreement for data sharing with MIT and develop algorithms for database organization and ophthalmological diagnosis.

Keywords:
Artificial intelligence, big data

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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

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Purpose
Methods
Results,
Conclusion
Keywords

77. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Pablo Felipe Rodrigues - PG1 DO
Advisor: Walton Nosé
e-mail: pablo@clinicspot.com.br
CEP Number: 802961170

5. ABSTRACT (REQUIRED):

Title: SAFETY AND EFFICACY OF IMPLANTATION OF A NEW INTRACORNEAL RING ASSOCIATED TO PHOTOREFRACTIVE KERATECTOMY TO CORRECT HIGH MYOPIA.

Author and Co-authors: Pablo Rodrigues, José Alvaro P. Gomes, Mauro Campos, Walton Nosé.

Purpose:
To evaluate the clinical outcomes after implantation of a new intrastromal corneal ring associated with photorefractive keratectomy (PRK) to correct high myopia in patients with thin corneas.

Methods:
Inclusion criteria: Spherical equivalent between 10.0 to 5.00D, PTA equal or plus 0,40, Residual thickness less than 280 microns, Patients with tomographic and/or biomechanical risk criteria. Exclusion criteria: Presence of c.orneal diseases, Previous eye surgery, amblyopia. A 60-kHz femtosecond laser used to create the ring channel for ICR. After 6 months, the surgical planning (ablation) was the full refractive error in cases with less than ? 2.00 D (spherical equivalent ? SE). In cases of more than -2.00 D of SE, 75% of correction was planned. Measurements were taken before and after 6 months of implantation. Corneal results are obtained using same the Pentacam, Corvis, OPD and Galilei.

Results:
27 eyes of 16 patients were evaluated. 07 women and 09 men. Average age of 24,96 (S.D. ±4.31). The mean follow-up time after PRK was 6.0 (S.D.± 1.2) months. The mean spherical equivalent decreased from ? 7.72 ± 1.62 (range -4.75 to -10.00) preoperatively to ? 0.63 ± 0.38 (range +0.75 to - 3.00) postoperatively (p'<'0.001) after PRK. The mean Km reduced from 43.91 ± 1.65 D (range 41.1 to 47.40 D) preoperatively to 40.7 ±2.17 D (range 36.3 to 45.5 D) postoperatively (p'<'0.001), after ICRS. Following PRK the mean keratometry was 38.11 ±2.21 D (range 35 to 42.20 D) (p'<'0.001). After the two procedures, the mean central pachymetry decreased from 521 ± 25.63 micra (range 476 to 581) preoperatively to 492 ± 30.46 micra (range 453 to 588) (p'<'0.001) postoperatively. Seven percent of eyes lost 2 lines of vision due to cornea irregularity (haze and myopia regression).

Conclusion:
In patients with high myopia and thin corneas, the sequential treatment of ICR-HM followed by PRK reduces the amount of laser ablation necessary for full treatment by a mean of 70%. This allows a safe treatment of patients with high myopia. The ICRS may enhance the effect of PRK. The cornea changes after ICRS-HM occur in the whole are central to the ICRS, for this reason, we could consider this segment as a "new limbus." An optical zone of 5.0 mm was used for PRK to reduce the risk of haze.

Keywords:
Corneal Biomechanical, PRK, ICR, tissue saving

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(RE) RETINA AND VITREOUS

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

78. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: José R. Lima de Carvalho Jr. - PG1 DO
Advisor: Rubens Belfort Jr.
e-mail: RONALDOCARVALHOJR@GMAIL.COM
CEP Number: 440/2018

5. ABSTRACT (REQUIRED):

Title: Best Vitelliform Macular Dystrophy (BVMD): a 4-year multimodal imaging follow-up & dark adapted perimetry evaluation

Author and Co-authors: Jose Ronaldo Lima De Carvalho, Sara Ragi, Jin Kyun Oh, Sarah R. Levi, Karen Park, Thiago Cabral, Rubens Belfort Jr, Janet Sparrow, Stephen Tsang

Purpose:
To test the hypothesis that imaging biomarkers and dark adapted chromatic (DAC) perimetry can be used to measure outcome in upcoming BVMD treatment trials.

Methods:
A retrospective analysis of 31 patients (59 eyes 27 families with a clinical and genetic diagnosis of dominant BVMD was performed. Three eyes were excluded from imaging analysis due to poor image quality. SD-OCT, SW-AF and NIR-AF images were taken at the same visit. A second set of imaging was performed in 15 patients (30 eyes). The diameter of the lesion measured by the SW- and NIR-AF were correlated with the measurements made by SD-OCT. Central macular thickness, foveal height of the lesion and foveal outer nuclear layer (ONL) thickness were measured by SD-OCT. Likewise, ONL thickness at temporal (T-ONL) and nasal (N-ONL) limits of the lesion and at 500mm from the border of the lesions (5T-ONL and 5N-ONL) towards the healthy retina were evaluated. Moreover, the area of the macular lesion was manually measured on both SW- and NIR-AF. In addition, DAC perimetry was performed in 10 patients. Comparative statistics was used to calculate differences between the calculated means. The Pearson correlation coefficient was used to evaluate the relationships between each imaging modality.

Results:
Among 59 eyes, one eye classified in the pre-vitelliform stage did not exhibit a lesion after 2 years of follow-up but revealed a hypoautofluorescent signal on NIR-AF that was not observed on SW-AF. The mean follow-up time was 4.11±0.54 years. Significant positive correlations were found among SD-OCT, SW-AF, and NIR-AF when used to measure lesion diameter (P'<'0.001). Distinct regions of the lesions, namely T-ONL, N-ONL, 5N-ONL, decreased in thickness by -3.83±2.26mm/year, -5.03±2.01mm/year, -5.11±2.69mm/year, respectively, over time. No progression was observed in the diameter and area of the lesion as measured by each imaging modality. DAC perimetry unveiled that patients had lower rod sensitivity than age-matched controls (P'<'0.05).

Conclusion:
NIR-AF appears to have greater sensitivity to the early pre-vitelliform stage in BVMD. Furthermore, our data suggests that ONL measurements may be used as an anatomical outcome measure for clinical trials. Photoreceptor specific DAC perimetry may be useful as an outcome measurement for rod function.

Keywords:
BVMD, BEST1

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Purpose
Methods
Results,
Conclusion
Keywords

79. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Aileen Miwa Tabuse - R1
e-mail: aileenmiwa@gmail.com
CEP Number: 40440200

5. ABSTRACT (REQUIRED):

Title: Rapid spontaneous resolution of subretinal hemorrhage on a 9-year-old female patient with choroidal osteoma

Author and Co-authors: Aileen Tabuse, Nikoly Fares

Purpose:
To report a rare case of spontaneous resolution of subretinal hemorrhage due to choroidal osteoma unassociated with choroidal neovascularization. We present a 9-year-old female patient with monocular blindness as a consequence of congenital microphthalmia and choroidal osteoma on the contralateral eye presenting visual acuity impairment because of subretinal hemorrhage after a Valsalva maneuver. The patient was followed for 21 days with multimodal retinal exams, presenting with rapid spontaneous resolution.

Methods:
Evaluation of the patient with multimodal retinal exams: retinal retinography, fundus autofluorescence, enhanced-depth imaging OCT, and OCT angiography (OCT-A). Ocular ultrasound was also performed. Findings of imaging were correlated with visual acuity, clinical features, and lesion characteristics.

Results:
The fundus examination of the eye showed subretinal orange and yellow mass with well-defined geographic borders on the macular area surrounded by subretinal hemorrhage. Fundus autofluorescence showed an area of hyperautofluorescence indicating the area of the hemorrhage. OCT shows hyperreflectivity associated with a large area of subretinal fluid and a subfoveal area of intraretinal fluid. OCT-A determined that there were no signs of choroidal neovascularization. After 21 days of follow-up, the fundus examination indicated a reduced area of subretinal hemorrhage, and the OCT showed resolution of the subretinal and intraretinal fluid.

Conclusion:
It is important to correctly identify the choroidal neovascularization because it determines which treatment the patient should receive. Recently it was shown that VEGF inhibitors can be used for the treatment of choroidal neovascular membranes and serous retinal detachment since it provides better visual acuity than observation. In this case, however, the patient had a subretinal hemorrhage after increased intravascular pressure caused by Valsalva maneuver, and choroidal neovascularization was ruled out by the OCT-A. Therefore, we preferred a meticulous follow-up instead of invasive treatments. The hemorrhage had a spontaneous recovery and after 21 days of close observation, the best visual acuity of the patient was 20/20.

Keywords:
choroidal osteoma, subretinal hemorrhage, valsalva maneuver, choroidal neovascular membrane

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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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THEME:

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Deadline: 10/2020

FORMAT:

Abstract should contain:

Title
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Co-authors (maximum 6)
Purpose
Methods
Results,
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80. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Tulio Loyola Figueiredo - R1
e-mail: loyola.tulio@gmail.com
CEP Number: 4042030

5. ABSTRACT (REQUIRED):

Title: Lateral Medullary Syndrome (Wallemberg Syndrome) - a Case Report.

Author and Co-authors: Tulio Loyola Figueiredo, Letícia Sant?Ana Cardoso da Silva, Ana Laura de Araujo Moura, Camila Matsuura Endo.

Purpose:
To report a case of the rare neurological disorder Wallemberg Syndrome, its ocular manifestations and the importance of basic neurological examination in the ophthalmological practice.

Methods:
Observational Case Report.

Results:
A previously heathy 44-year-old patient in use of contraceptive pill presented to an ophthalmological evaluation with an acute binocular vertical diplopia in the last day, associated with dysphagia, nausea, hoarseness and left hemiface paresthesia. During her admission, her ophtalmological examination showed an anisocoria greater in dark, with myosis and ptosis of 2 mm on the left eye, compatible with Horner's Syndrome. The diplopia was associated to left skew deviation. The neurological examination, however, demonstrated loss of thermal and painful sensitivity in the left hemiface, right trunk paresthesia, postural instability, ataxic march and affection of the IX and X cranial nerves. Neuroimaging detected left bulb CVA and V3/V4 left spine artery dissection with presence of intramural thrombus. The anti-coagulant therapy was iniciated, and the patient referred important symptoms improvement.

Conclusion:
Lateral Medullary Syndrome (Wallemberg Syndrome) is a rare disorder with a range of symptoms due to medulla oblongata lateral area ischemia. Within this range, the ocular manifestations such as diplopia and ptosis can lead the patient to have his first examination done by an ophthalmologist. Therefore, basic neurological examination should be performed by general ophthalmologist in order to guide the diagnosis, treatment and follow-up of cerebrovascular diseases with eye or visual complaints.

Keywords:
Wallemberg Syndrome, Lateral Medullary Syndrome, Posterior Inferior Cerebellar Artery Syndrome, Vertebral Artery Syndrome, Cerebrovascular diseases, Diplopy, Ptosis.

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(LV) LOW VISION

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Methods
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Keywords

81. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Mariana Antunes Davi - R2
e-mail: ma.antunes.d@hotmail.com
CEP Number: 2.469.885

5. ABSTRACT (REQUIRED):

Title: ?Assessing Satisfaction using Net Promoter Score in Infantile Low Vision consultations: In-Person versus Telemedicine.?

Author and Co-authors: Mariana Antunes Davi, Ana Carolina S. B. Carneiro, Marcia Caires Bestilleiro Lopes, Aline Carvalho Ribeiro, André Leite Silva, Carolina Pelegrini Gracitelli, Mauro Silveira de Queiroz Campos, Célia Regina Nakanami

Purpose:
To evaluate implementation of ?Net Promoter Score? (NPS) as a global rate to assess the satisfaction of patients with low vision in two different scenarios (in-person vs. telemedicine) in a public health service.

Methods:
This was a prospective cross-sectional study that included 99 satisfaction consultations of patients who underwent multidisciplinary healthcare appointments in-person or telemedicine in Infantile Low Vision (ILV) division of Federal University of Sao Paulo from March/20 until September/20. Written informed consent was obtained from all participants. At the end of the appointment day, the guardian of the patient received the NPS quantitative and qualitative questions. The responses were segmented between ?promoters? (9 or 10), ?passives? (7 or 8) or ?detractors? (6 or below). The NPS was calculated disregarding ?passives? and by subtracting the proportion of ?detractors? from the proportion of ?promoters?. The final score is shown as an integer, not a percentage, from -100 to +100. The analysis was completed with a qualitative question regarding the reasons for the responses.

Results:
The mean age of the entire sample was 2.8 years-old and 47% were female. The most prevalent race was white (55%) followed by mixed race (26%). The NPS rate response was 84% in overall, while 74% in in-person and 97% in telemedicine. The NPS final score was +88.63 in in-person and +92.30 in telemedicine. Overall rate of response in qualitative NPS was 87% and words as ?attentive?, ?great? and ?excellent? were presented in 43% of the sample.

Conclusion:
The NPS is a widely used global rating due to its ease of implementation and simple metric. In our study we concluded that it is applicable in the population of a public service with a very reasonable rate of response. The NPS result was satisfactory in both groups telemedicine and in-person. The high score could be related with the qualitative responses that highlighted how attentive were the consultations in both scenarios. Based on the satisfactory response of telemedicine consultations we can infer a good patient acceptance and therefore a value option for multidisciplinary healthcare.

Keywords:
telemedicine; satisfaction; NPS; pediatrics patients, ophthalmology

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(CO) CORNEA AND EXTERNAL DISEASE

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Keywords

82. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Celso de Souza Dias Júnior - Fellow
e-mail: celso_dias@live.com
CEP Number: 0843/2017

5. ABSTRACT (REQUIRED):

Title: Seasonal trends of Acanthamoeba keratitis in a reference service

Author and Co-authors: Celso de Souza Dias Júnior, Maria Cecília Zorat Yu, Flávio Eduardo Hirai, Luciana Lopes Rocha, Larissa Fagundes, Viviane Peracini Sant'Anna, Ana Luisa Höfling-Lima, 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 December 2019 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 v.14 program

Results:
Among the 3.179 tests requested for Acanthamoeba, 547 had a positive result (17.21% of positivity), among which 437 were obtained from a corneal scrape or biopsy (110 tests were excluded, of which 3 represent samples collected from contact lenses case, 1 from conjunctiva, 1 from sclera, 4 from aqueous humor, 2 from vitreous, 1 from iris, 89 from contact lenses, 2 from cleaning solution, 7 from physiological solution). The 437 positive tests represent 370 eyes (since some eyes were collected more than once) and 13 patients presented bilateral condition (simultaneous or not), totaling 357 patients. Regarding gender, 222 (62.2%) were female and 135 (37.8%) were male. The age varied between 13 to 82 years old with an average of 33.11 years and the following frequency: 13-24 yo (99), 25-34 yo (122), 35-44 yo (62), 45-54 yo (28), 55-64 yo (14), 65-74 yo (11), 75-82 yo (04). Analysis revealed an uneven distribution of Acanthamoeba keratitis throughout the year with peaks in January (35 cases), May (35 cases) and August (37 cases).

Conclusion:
Seasonal trend was observed with an increase in cases in Autumn and Winter due to probable contagion in Summer

Keywords:
Acanthamoeba; Keratitis; Seasonality

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THEME:

Infeccion
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Cell therapy

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FORMAT:

Abstract should contain:

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

83. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Larissa Lograd Aguiar - Fellow
e-mail: larissa_lograd@hotmail.com
CEP Number:

5. ABSTRACT (REQUIRED):

Title: REPORT OF THE USE IN VIVO CONFOCAL MICROSCOPY (IVMC) AND ANTERIOR SEGMENT OPTICAL COHERENCE TOMOGRAPHY (AS-OCT) TO EVALUATE TISSUE CHANGES AFTER CROSS-LIKING (CXL) AS AN ADJUVANT THERAPEUTIC MODALITY FOR BACTERIAL KERATITIS

Author and Co-authors: Larissa Lograd Aguiar Taís Hitomi Wakamatsu Flavio Hirai Lauro Augusto de Oliveira Denise de Freitas Ana Luísa Höfling Lima Luciene Barbosa de Sousa

Purpose:
Infectious keratitis is an important public health problem with high morbidity, which is often underestimated. Cases that are not responsive to treatment may progress to serious complications such as corneal perforation and it may require urgent penetrating tectonic keratoplasty. New therapeutic alternatives have been proposed to manage this situation, such as photoactivated chromophore for keratitis corneal cross-linking (PACK-CXL), therefore more randomized controlled trials are needed to support the effective of CXL in the treatment of infectious keratitis. The evaluation of the response to treatment still is a challenge, new imaging technologies, such as Anterior Segment Optical Coherence Tomography (AS-OCT) and In vivo Confocal Microscopy (IVCM), have enabled new information and possibilities in the field of diagnosis and monitoring of corneal diseases. While IVCM offers data at a cellular level, OCT offers cross-sectional anatomical images. The study aims to evaluate, with IVMC and OCT, the corneal tissue changes in bacterial keratitis after CXL associated drug treatment.

Methods:
Description of series of cases involving 5 patients with an acute bacterial keratitis in treatment with crossliking associated with antibiotic therapy who will use IVCM and AS -OCT to assess corneal changes. Patients will be treated with topical medication and with CXL procedure according to department protocol after corneal scraping for culture analysis. Isotonic riboflavin 0,1% with methylcellulose will be administrated and Dresden protocol performed. In all patients, signed informed consent will be obtained.

Results:
The study is in the collection data phase with results in progress.

Conclusion:
In reason of the need for therapeutic alternatives for better management of infectious keratitis, more studies that seek methodologies for assessing and monitoring the response, safety and efficacy during treatment are required.

Keywords:
Bacterial Keratitis. Crosslinking. Confocal Microscopy. Optical Coherence Tomography.

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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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84. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Mariana Kawamuro - Fellow
e-mail: mkawamuro@gmail.com
CEP Number: 0

5. ABSTRACT (REQUIRED):

Title: Nine-year epidemiological analysis of post anti-VEF injections endophthalmitis in a Brazilian hospital

Author and Co-authors: Mariana Kawamuro, Vinicius Campos Bergamo, Luis Filipe Nakayama, Nilva Simeren Bueno de Moraes Ambrogini

Purpose:
To study the incidence of endophthalmitis in a tertiary hospital in São Paulo, after antiangiogenic injection.

Methods:
A retrospective study was performed collecting data from patients who received antiangiogenic injection during January 2011 to December 2019 in Hospital São Paulo (São Paulo, Brazil). Age, sex, visual acuity (VA), treatment indication was accessed for all patients. In the presence of suspected endophthalmitis the VA prior, at the diagnosis and 1 year after treatment was also collected. The identified pathogens in the anterior chamber / intravitreal culture were also listed.

Results:
A total of 12.441 injections were performed in the hospital during the anaylised period. There were 25 cases of suspected endophthalmitis, and 23 cases were confirmed by positive culture. Accumulated incidence of endophthalmitis was 0,185% during 9-years follow-up. The majority of the identified pathogens were from Staphylococcaceae family.

Conclusion:
Endophthalmitis still is the most feared complication after any ocular procedure. In our analysis, the incidence of endophthalmitis is higher than other studies. Early diagnosis and prompt treatment are mandatory for reasonable visual outcome.

Keywords:
endophthalmitis; anti-VEGF injection; incidence; epidemiology

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85. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Olívia Pereira Kiappe - Fellow
e-mail: oliviakiappe@hotmail.com
CEP Number: 4039001

5. ABSTRACT (REQUIRED):

Title: COVID-19: ophthalmological screening in newborns

Author and Co-authors: Olívia P Kiappe, Natasha F S Cruz, Paulo A C Rosa, Luciana Arrais, Nilva S B Moraes

Purpose:
To determine whether COVID-19 affects the eyes of the NBs.

Methods:
Design, settings and participants: This case series enrolled 115 newborns (NBs) with maternal COVID-19 positive test. NBs (age at exam: 1 to 18 days) were examined from April to September 2020. In all cases, the specific tests for COVID-19 were performed both in NBs and their mothers. NBs were excluded if they had evidence of another congenital infection. All infants underwent an external ocular examination and indirect ophthalmoscopy. NBs ophthalmological screening occurred in three different maternity hospitals of São Paulo. This study was approved by the ethics committee. Main Outcome and Measure: ocular findings on NBs with maternal COVID-19 infection.

Results:
Maternal COVID-19 positive test varied between 1st and 40th gestational weeks. Four NBs had positive assay for COVID-19 (two of them had positive PCR and two had positive IGM). One infant tested positive with 18 days (horizontal transmission), and three in the first day of life (possible vertical transmission). Only one NB presented with ocular abnormality, which was retinal vascular tortuosity and venous engorgement seen on fundoscopy. Maternal infection was with 28 gestational weeks and NB comorbidities were ruled out.

Conclusion:
To the best of our knowledge, there are no reports assessing possible eye involvement in NBs after COVID- 19 infection. Since only 1 of 115 NBs presented with ocular mild abnormalities, it is unlikely that COVID-19 congenital infection can cause severe ocular manifestations. Additional study is required to confirm ophthalmological signs on NBs. Although more data is needed, vertical transmission of COVID-19 seems to be possible and should be a concern.

Keywords:
COVID-19; congenital infection; newborn

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Methods
Results,
Conclusion
Keywords

86. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Vicente Fontes Júnior Conrado - Fellow
e-mail: vicentecfj@yahoo.com.br
CEP Number: 357409207

5. ABSTRACT (REQUIRED):

Title: The COVID-19 pandemic impact on the ocular cancer diagnosis and treatment

Author and Co-authors: Fontes Júnior, VC, Fernandes, AG, Morales, MC, Belfort, RN

Purpose:
To quantify the impact of social isolation due to the COVID-19 pandemic on the number of new cases and therapeutic approaches at the Ocular Oncology division from the Federal University of São Paulo (UNIFESP).

Methods:
A retrospective study was conducted by medical records reviews of new patients treated before the pandemic from March 2019 to September 2019 (pre-COVID group) and during the pandemic from March 2020 to September 2020 (COVID group). Data regarding age, sex, ethnicity, place of origin, clinical diagnosis, time since referral and proposed therapy were analyzed.

Results:
We analyzed 186 new cases, 122 from the pre-COVID group and 64 from the COVID group, representing a decrease of 47.54% in new cases. There was no statistically significant change in gender, race, state of origin, history of cancer, age or time with suspected cancer ($p>0.05$). A higher frequency of malignancies was observed in the COVID group (57.81%) when compared to the pre-COVID group (39.34%). Benign tumors together were the most diagnosed cases in the pre-COVID group (40.16%), while in the COVID group the most frequent diagnosis was conjunctival squamous cell carcinoma (35.94%). We observed a statistically significant difference in the therapeutic to conjunctival squamous cell carcinoma ($p=0.023$), with a decrease in the number of surgeries (-16.6%) and increase in the number of injections (+13.0%), observation (+13.0%) and referrals (+9.3%). There is also a tendency to less surgeries in benign tumors and decreased immediate returns.

Conclusion:
Our findings show a significant decrease in the number of new cases referred to the Ocular Oncology division and we can estimate the number of missed diagnoses due to pandemic isolation. Moreover, the pandemics leaded to a switch in the therapeutic approach with preference to non-invasive treatments that would demand operating rooms. A drastic increase of cases perhaps in advanced stages might be expected as a result of the decrease observed in the first 6 months of quarantine. Financial supporte: none to declare.

Keywords:
COVID; pandemic; ocular cancer; tumor

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Purpose
Methods
Results,
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87. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Wirley Alves Mendonça Junior - Fellow
e-mail: wirley04@hotmail.com
CEP Number: 1.423.852

5. ABSTRACT (REQUIRED):

Title: Evaluation of Rose Bengal Photodynamic Antimicrobial Therapy as an adjunctive treatment for severe keratitis: a case series

Author and Co-authors: Wirley Alves de Mendonça Júnior, Talita Trevizani Rocchetti, Denise de Freitas, Jarbas Caiado de Castro Neto, Ana Luisa Hofling-Lima

Purpose:
To evaluate the inclusion of rose bengal photodynamic antimicrobial therapy (RB-PDAT) for treatment of patients with severe infectious keratitis.

Methods:
Four patients with severe keratitis (one methicillin-resistant Staphylococcus aureus (MRSA), one methicillin-susceptible S. aureus (MSSA), one Moraxella spp. and one Fusarium solani) not responsive to standard medical care were treated with RB-PDAT. The areas of epithelial defect were 95, 90, 24.44 and 1mm² while the stromal opacification areas were 95, 40, 24.44 and 6mm², respectively. The lengths of standard medical treatment prior to the procedure were 7, 1, 18 and 21 days, respectively. RB-PDAT was performed by applying a solution of rose bengal 0.1% in balanced salt solution to the de-epithelialized cornea for 30 minutes (one drop every three minutes), followed by irradiation with a 7.15 mW/cm² custom-made green LED source for 15 minutes (6.43 J/cm²). In order to evaluate RB-PDAT activity against the infecting microorganism, tests were performed ?in vitro? as well.

Results:
All eyes had clinical resolution of infection in 40 (MRSA), 16 (MSSA), 102 (Moraxella spp.) and 67 (F. solani) days after RB-PDAT. Patients with Moraxella spp. and F. solani keratitis required a second treatment, 34 and 20 days after the first procedure, respectively. Patient with MSSA infection was the only who had a diffuse thin cornea (480 micra) due to a very compromised ocular surface and had a small corneal perforation 9 days after the procedure, wich was managed with cyanoacrylate glue. None of the cases needed therapeutic keratoplasty.

Conclusion:
RB-PDAT can be considered as an adjunctive therapy in cases of severe and progressive keratitis despite standard medical care, especially to avoid therapeutic keratoplasty.

Keywords:
rose bengal, photodynamic therapy, infectious keratitis

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(CO) CORNEA AND EXTERNAL DISEASE

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Methods
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Keywords

88. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Aline Carneiro Couto - PG0 DO
e-mail: alinecouto.epm@gmail.com
CEP Number: 5062016

5. ABSTRACT (REQUIRED):

Title: Purpuriocillium keratitis: a challenging infection

Author and Co-authors: Aline Couto Carneiro, Mario Roberto Sousa Trindade, Maria Cecilia Zorat- Yu, Ana Luisa Hofling- Lima, Arnaldo Lopes Colombo, Denise Freitas

Purpose:
Purpuriocillium sp are filamentous saprophytic fungi found worldwide. Half of all reported infections affect the eye, and many are refractory to conventional anti-fungal agents.

Methods:
We have performed a retrospective study between 1995-2018 of 24 patients developing P. keratitis in São Paulo?s hospital. The strain was identified and isolated in 13 cases to do the Minimum Inhibitory Concentrations (MIC) and analyze the most common anti-fungals drugs against the Purpuriocillium lilacinus.

Results:
Most part of all cases developed this infection after eye surgery (66.7%), followed by contact lens (13.3%) and ocular trauma (6.64%). The main topical treatment drugs were amphotericin B 0,15% (100%) and intracameral injection (66.7%). However, the patients kept worsening and were submitted to keratoplasty (53%). The majority of antifungigram showed elevated MIC regarding itraconazole (16µg/mL) and anphotericin B (16µg/mL) and sensibility to voriconazole (0,25µg/mL) and posiconazole (1µg /mL).?

Conclusion:
P. lilacinus keratitis does not respond reliably to most frequently applied anti-fungal treatment, demanding therapeutic keratoplasty. Voriconazole and posaconazole were considered the best anti-fungal drugs for the treatment of Purpureocillium lilacinus keratitis.?

Keywords:
Keratitis, Purpuriocilium lilacinus, Antifungals

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(RE) RETINA AND VITREOUS

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89. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Vinicius Campos Bergamo - PG0 DO
Advisor: Mauricio Maia
e-mail: viniciusbergamo.epm@gmail.com
CEP Number: 0060/2018

5. ABSTRACT (REQUIRED):

Title: THE ROLE OF PARS PLANA VITRECTOMY IN ACUTE INTRAVITREAL ANTI-VEGF-RELATED ENDOPHTHALMITIS: a Retrospective View

Author and Co-authors: VINICIUS CAMPOS BERGAMO, MD,* LUIS FILIPE NAKAYAMA, MD,* NILVA SIMEREN BUENO DE MORAES, MD, PhD,* MARIA CECÍLIA ZORAT YU, MSC,? ANA LUISA HÖFLING-LIMA, MD, PhD,? MAURÍCIO MAIA, MD, PhD*

Purpose:
To evaluate best corrected visual acuity (BCVA) and anatomic changes by optical coherence tomography (OCT) in eyes with acute endophthalmitis after intravitreal anti-vascular endothelial growth factor (VEGF) injections treated by either intravitreal antibiotic injection or vitrectomy.

Methods:
This retrospective study collected BCVA levels, anatomic parameters, and infectious agents from the medical records in the Microbiology Laboratory of the Ophthalmology Department, Federal University of Sao Paulo. Twenty-three eyes with acute endophthalmitis and positive laboratory cultures from January 2011 to January 2019 were included. Three groups were compared, according to type of treatment and moment of approach.

Results:
The mean patient age was 59.2 ± 16.1 years (range, 23-81 years). Intravitreal antibiotics were the primary treatment for 21.7% of patients, and 78.3% of patients underwent pars plana vitrectomy (PPV). Of the 78,3% of patients who underwent PPV, 43.5% had an initial BCVA of no LP and 34.8% had a BCVA better than LP. The 1-year BCVAs did not differ significantly (P = 0.647) between the treatment groups. A post-hoc analysis showed better BCVA at 1 year in the PPV group in patients with better initial BCVA (P '<' 0.05), although development of epiretinal membranes occurred during follow-up (odds ratio, 0.07, 95% confidence interval, 0.01-0.82, P = 0.035).

Conclusion:
Early PPV might be a good treatment option in eyes with acute intravitreal anti-VEGF-related endophthalmitis, especially when the initial BCVA is better than LP.

Keywords:
anti-VEGF, endophthalmitis, vitrectomy, retina, intravitreal injections

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90. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Aristófanes Mendonça Canamary Jr. - PG1 DO
Advisor: Cristina Muccioli
e-mail: aristofanesjunior@gmail.com
CEP Number: 60.810-14

5. ABSTRACT (REQUIRED):

Title: Quality-of-Life and Psychosocial Aspects in Patients with Ocular Toxoplasmosis in a Tertiary Care Hospital in Brazil.

Author and Co-authors: Aristofanes M C Jr, Caio Regatieri, Luci Meire P Silva 1, Ricardo Casaroli, Cristina Muccioli

Purpose:
To evaluate quality of life in patients diagnosed with uveitis-related to toxoplasmosis, in Brazil, through the application of mental, general and visual health questionnaires.

Methods:
Data were collected through standardized interviews using HADS, SF-12, NEI-VFQ-25 forms for anxiety and depression symptoms and health-related quality of life. A specific form structured by the researchers were elaborated to demographic and clinical data.

Results:
81 patients were included with a mean age of 41.5 ± 14.5 years, gender about the same (females, 50.6%). Three groups according to the best corrected visual acuity in the better seeing eye were formed: normal vision (0-0.4 logMAR, 60 participants), low vision (0.48-0.9 logMAR, 9 participants) and blindness (>1 logMAR, 12 participants). Individuals with visual impairment were three times more likely to have severe anxiety symptoms than normal vision group although not statistically significant (p=0.260). In the SF-12, statistical significance for low vision group for emotional role domain (0.016) and MCS (p = 0.019) were found. In the VFQ-25, bilateral involvement was statistically significant for near (p = 0.016) and distance (p = 0.017) activities and global component score (p = 0.049).

Conclusion:
Slightly more than a quarter of the sample presented impaired vision related to ocular toxoplasmosis and this may have an impact on visual function related quality of life, showing lower scores in the questionnaires. It also may affect psychological aspects given that anxiety symptoms were more frequent in this specific group.

Keywords:
Toxoplasmosis, posterior uveitis, quality of life, anxiety, depression

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THEME:

Infeccion
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Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

91. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Luciana Lopes Rocha - PG1 DO
Advisor: Denise de Freitas
e-mail: luciana_lr@yahoo.com.br
CEP Number: 0843/2017

5. ABSTRACT (REQUIRED):

Title: Success in the treatment of the first two cases of Acanthamoeba endophthalmitis in Brazil

Author and Co-authors: Luciana Lopes Rocha, Marcella Boaventura e Carvalho, Renata Cavalcanti Portela Boro, Denise de Freitas

Purpose:
To review Acanthamoeba endophthalmitis and report the first two cases in Brazil

Methods:
A retrospective review of the first two cases of Acanthamoeba endophthalmitis in Brazil and a review in the literature. First, 44-year-old woman wearing contact lens and a history of LASIK for 15 years and a man, 43 years old wearing contact lens. Both were diagnosed with Acanthamoeba by culture.

Results:
The woman was admitted four months after the onset of symptoms with visual acuity (VA) of light perception (LP) in the affected eye and at biomicroscopy she had a ring infiltrate and hypopyon. She was treated with topical biguanide hourly, but after 7 weeks worsening she underwent keratoplasty with facectomy. After the third month she had pain, loss of vision, hypopyon and vitreous reaction. Vitrectomy was performed with material collection. The vitreous culture revealed Acanthamoeba sp. Two intravitreal injections of voriconazole and several subconjunctivals were performed. There was infection control. Patient evolved to phithisis bulbi and final VA of LP. The man after diagnosis used the correct dosage of propamidine, biguanide and chlorhexidine, with no clinical response and after one year underwent keratoplasty. He presented recurrence of the infection with no new clinical response to treatment, and a second keratoplasty was indicated and on the 45th postoperative day, hypopyon and peripupillary infiltration of whitish material were noted. An anterior chamber puncture was performed, which revealed Acanthamoeba. After diagnosis of endophthalmitis, he used voriconazole oral and eye drops, subconjunctival and intracameral injection of biguanide. He evolved with severe anterior chamber keratitis and endophthalmitis with perforation and a third keratoplasty with removal of the intraocular lens. In the postoperative he was treated with topical chlorhexidine, with good evolution

Conclusion:
Despite the improvement in diagnostic methods, medications and surgical interventions, treatment for CA remains a challenge, and even rare, it can progress to endophthalmitis. Despite the rare cases in the literature of treatment of endophthalmitis by Acanthamoeba, both cases described had complete cure of the infection with preservation of the eye.

Keywords:
Acanthamoeba; endophthalmitis; keratoplasty

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Author
Co-authors (maximum 6)
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Methods
Results,
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92. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Marisa Lúcia Romani Paraboni - PG1 DO
Advisor: Rubens Belfort Jr.
e-mail: marisar@uri.com.br
CEP Number: 3.916.446

5. ABSTRACT (REQUIRED):

Title: Seroprevalence of Toxoplasma gondii in Blood Banks of Southern Brazil

Author and Co-authors: Marisa Lucia Romani Paraboni (1,2), Deise Fialho Costa (1), Kleber Ribeiro (1), Alessandra G. Commodaro (1) and Rubens Belfort Jr.(1). (1) Department of Ophthalmology? EPM. UNIFESP, IPEPO, SP (2) Department of Health Sciences ? URI, Erechim, RS

Purpose:
Our goal was determine the seroprevalence of specific T. gondii IgG and IgM and the frequency of T. gondii DNA in blood and serum samples from Blood Banks of Southern Brazil.

Methods:
Peripheral Blood and serum were collected from 400 blood donors, 200 from Blood Bank of Erechim city, RS, and 200 from Blood Bank of Chapeco city, SC. Specific T. gondii IgG and IgM antibodies were detected by Eletrochemioluminescence (Roche). DNA was extracted from 20 blood samples (7 IgM+/ IgG+ and 13 IgM-/ IgG+) and real time PCR (qPCR) was performed using 529-bp and B1 markers.

Results:
The mean age of the blood donors from Erechim city was 37.75 years old (SD: 11.96) and 51% (102/200) were male, the mean age of the blood donors from Chapeco city was 34.57 years old (SD: 11.50) and 50% (100/200) were male. The seroprevalence for T. gondii among the total number of blood donors was 46 % (184/ 400). Among 200 blood donors from Erechim city, 46% (92/200) were IgM -/IgG+, 1.5% (3/ 200) were IgM+/ IgG+ and 52% (105/200) were seronegative. Out of 200 blood donors from Chapeco city, 42.5% (85/200) were IgM- / IgG+, 2% (4/200) were IgM+/ IgG+ and 55.5% (111/200) were seronegative. Additionally, we did not find T. gondii DNA in the samples analyzed by qPCR.

Conclusion:
The seroprevalence for T. gondii infection was similar in both Blood Banks of Southern Brazil. Also, the 2% of individuals IgM+/ IgG+ could be considered a potential risk for contamination of blood recipients because of the lack of tests to detect T. gondii infection in Blood Banks. Financial Support: CNPq, FAPESP and CAPES

Keywords:
Toxoplasma gondii, IgM, IgG, Blood Bank

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Cell therapy

Deadline: 10/2020

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Purpose
Methods
Results,
Conclusion
Keywords

93. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Rosangela Demetrio - PG1 DO
Advisor: Denise de Freitas
e-mail: rodemetrio@gmail.com
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

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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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

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

94. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: David Cavalcante Barbosa - R1
e-mail: david.cavalcanteb@gmail.com
CEP Number: 59094190

5. ABSTRACT (REQUIRED):

Title: Cytomegalovirus retinitis as opportunistic coinfection in a child with HIV/AIDS: a case report

Author and Co-authors: David C. Barbosa MD, Gustavo A. Samico MD, Nikoly T. Fares MD

Purpose:
To report a case of cytomegalovirus retinitis in an infant as first AIDS-defining infection.

Methods:
We described a 9-year-old boy with loss of vision OU for 2 weeks with no remarkable past medical history, except for coughing and low fever in the prior month. He had a visual acuity of hand motion OU at presentation and a fundus examination showing blurred optic disc and whitish confluent intraretinal lesions in the posterior pole associated with vasculitis.

Results:
The initial diagnostic hypotesis were cytomegalovirus retinitis and progressive outer retinal necrosis, supported by a postive HIV rapid test. The patient was admitted to the hospital, a positive IgM and IgG serology for cytomegalovirus was obtained and antiviral therapy with ganciclovir 5mg/kg b.i.d was promptly started. A chest CT showed multiple ground glass opacities, diffuse and bilateral, compatible with infectious process of viral or fungal etiology, and an orbits MRI revealed optic nerves with reduced thickness bilaterally, most prominent in the left side. The retinal necrosis progressed on day 5 to retinal detachment OD and visual acuity of no light perception OD and light perception OS, so it was decided to apply an intravitreal injection of ganciclovir OS. After results of viral load (462,544 copies/mL) and CD4+ T-cell count (128 cells/?L), HAART was initiated with zidovudine + lamivudine + raltegravir. The patient received hospital discharge after 21 days of IV ganciclovir, with maintained visual acuity and proposal of vitreoretinal surgery OS.

Conclusion:
Cytomegalovirus retinitis is the most common ocular opportunistic infection in patients with AIDS, affecting mostly those with CD4+ counts of 50 cells/?L or less, and up to 50% of patients develop retinal detachment. Despite its association with a more severe immunosupression, it is important to always consider cytomegalovirus infection in HIV-infected patients presenting with retinitis, as early diagnosis and treatment may prevent vision-threatening complications. Furthermore, intravitreal therapy, when indicated, should be combined with systemic antiviral drugs in order to treat extraocular disease and the fellow eye.

Keywords:
cytomegalovirus retinitis, cytomegalovirus, AIDS, retinal detachment

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(RE) RETINA AND VITREOUS

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Cell therapy

Deadline: 10/2020

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Abstract should contain:

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

95. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Juan Fulgencio Welko Mendoza - R1
e-mail: juanfwm@gmail.com
CEP Number: 0154/2020

5. ABSTRACT (REQUIRED):

Title: White Dot Syndrome in a Patient with Presumed Ocular Tuberculosis

Author and Co-authors: Juan Fulgencio Welko Mendoza, Zaira Nicolau, Diego Araújo, Luis Nakayama, Vinicius Bergamo, Rodrigo Meirelles, Octaviano Magalhães Jr.

Purpose:
describe a case of a patient with presumed ocular tuberculosis masquerading as multiple evanescent white dot syndrome.

Methods:
Observational case report

Results:
A 32-year-old male patient had a reduced visual acuity in the left eye. Retinal fundus exam of the left eye revealed gray-whitish deep lesions predominantly nasal to the optic disc. The lesions were more clearly identifiable on fundus autofluorescence (FAF) imaging, fluorescein angiography (FA) and en face optical coherence tomography (OCT). FA also indicated retinal vasculitis and papillitis. Swept-source OCT B-scan demonstrated loss of the ellipsoid layer in the regions corresponding to the lesions detected by FAF. A positive tuberculin skin test (TST) confirmed presumed tuberculosis, and a related WDS diagnosis was made. Specific antituberculosis therapy was instituted with favorable anatomical recovery and visual outcome.

Conclusion:
Multiple evanescent white dot syndrome (MEWDS) may be manifestation of presumed ocular tuberculosis, and multimodal retinal exams can provide a better understanding of atypical diseases and their follow-up.

Keywords:
multiple evanescent white dot syndrome; tuberculosis; white dot syndrome

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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

96. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Klaus Anton Tyrrasch - R1
e-mail: klaustyrrasch@gmail.com
CEP Number: 4025011

5. ABSTRACT (REQUIRED):

Title: Cavernous Sinus Tuberculosis as cause of Painful Multiple Ophthalmoplegia

Author and Co-authors: Klaus Anton Tyrrasch, Nikoly Tigani Fares, Leticia Sant?Ana Cardoso da Silva

Purpose:
To report a case of cavernous sinus tuberculosis characterized by painful multiple ophthalmoplegia.

Methods:
We describe a case of tuberculosis located at the cavernous sinus.

Results:
A 62-year-old patient presented with left eye ptosis, pain, binocular diplopia and left facial tingling for 2 months. At this time, she presented with III, IV and VI cranial nerves palsy, total limitation of extrinsic ocular motility and sensitivity reduction at left V1 and V2 territories. Her visual acuity in the left eye was 0.1 and she had a fixed mydriatic left pupil. The rest of physical exam was normal. She was submitted to serologic exams for HIV and syphilis, which were negative. Her tuberculin skin test was reactive with a 20 millimeters response. She was previously immunized and denied any contact with symptomatic people. Her chest Computed Tomography (CT) was normal. A sella turcica Magnetic Resonance (MR) showed a hypodense mass involving about 80% of left intern carotid, with homogenous contrast capture, suggesting the existence of a granulomatous lesion in the cavernous sinus. She was submitted to empiric treatment for tuberculosis with the classical scheme of Rifampicin, Isoniazid, Pyrimethamine and Ethambutol (RIPE) for 2 months and 10 months with Rifampicin and Isoniazid (RI). The patient had a progressive improvement of her ocular motricity, with spontaneous palpebral opening and absence of medial and inferior restriction in the first month of treatment. After 6 months, she did not have any ptosis. 1 year after the end of the treatment, she remained only with a left esotropia when in supraduction.

Conclusion:
There are 19 described sinus cavernous tuberculosis cases since the first one in 1992. It is an important differential diagnosis of central nervous system infections, mainly in developing countries. The biopsy is the definitive diagnostic method, even though it has a 35% sensitivity. The recommended treatment is with the RIPE scheme for 2 months, followed by 7 to 10 months of RI, associated or not with corticosteroids. In this case, the patient with a complete left cavernous sinus syndrome, MR suggestive image of granuloma and a strongly reactor tuberculin skin test guided the empiric treatment, with important recovery of the affection.

Keywords:
Cavernous Sinus; Tuberculosis; Neurophthalmology

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Methods
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Keywords

97. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Júlia Jiquilin Carvalho - R2
e-mail: juliajcarvalho@hotmail.com
CEP Number: 100026/20

5. ABSTRACT (REQUIRED):

Title: Epidemiology of Pediatric Ocular Trauma

Author and Co-authors: Júlia Jiquilin Carvalho, Nikoly Tigani Fares, Nilva Simeren Bueno de Moraes Ambrogini

Purpose:
Eye trauma represents an important cause of acquired unilateral blindness in the world population and in childhood. More than a third of the cases of vision loss in the first decade of life are due to eye trauma and its repercussions, such as amblyopia. Most of these events could be prevented, reducing the risk of long-term visual impairment. Data related to developing countries are scarce and may show a different epidemiology according to the population's socioeconomic conditions The aim of this study is to characterize the epidemiology and characteristics of ocular trauma in children in an ophthalmologic emergency of reference at a university hospital in São Paulo, such as the population at greatest risk and trauma mechanisms, identifying causal factors and contributing to awareness and determination effective methods to reduce preventable causes

Methods:
The study is observational and retrospective, conducted at the Ophthalmology emergency room of Hospital São Paulo. All medical records of patients from 0 to 15 years old presenting with ocular trauma history from January 2009 to March 2020 were included in our study and evaluated for epidemiological parameters like mode of injury, age, sex distribution, type of injury, entrance and final visual acuity, anterior segment findings, fundus examination and surgical procedures performed along follow up. Data will be reviewed using appopriate statistical tests (in progress).

Results:
The study analyzed 1796 patients with a record of ocular trauma of which 1167 were included for statistical analysis. The patients excluded did not have a history of eye trauma or there was insufficient data for analysis in medical records. Further results in progress.

Conclusion:
In progress

Keywords:
Pediatric ocular trauma, epidemiology, eye injuries.

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

98. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Camila Kase - R3
e-mail: camila.kase@gmail.com
CEP Number: 0715/2020

5. ABSTRACT (REQUIRED):

Title: Microbial Keratitis at a Tertiary Hospital in Sao Paulo, Brazil

Author and Co-authors: Kase C, Boppré YT, Rocchetti TT,Yu MCZ,Fernandes A,Hofling-Lima AL

Purpose:
To study the correlation between epidemiological data and laboratory diagnosis of patients with microbial keratitis

Methods:
Retrospective analysis of laboratory results from corneal samples cultures from patients with clinical diagnosis of microbial keratitis referred to the Microbiological Laboratory of Ophthalmology Department of Hospital Sao Paulo Escola Paulista de Medicina from January 2010 to December 2019. Laboratory results were analysed according to etiological diagnosis of bacterial, mycotic and parasitic infection and correlated to epidemiological data: sex, age, affected eye, symptoms duration and related risk factors

Results:
During the study period 4474 corneal samples were obtained from 3602 patients. Mean age was 47.92±20.39 years(15 days-102 years). There were 2386(53.33%) male and 2088(46.67%) female patients. There was a greater positivity for bacterial(n=2939, 65.69%), followed by fungal (n=290, 6.48%) and Acanthamoeba(n=153, 3.42%) isolates. The most frequent isolated bacteria were Coagulase-negative Staphylococcus(CoNS) (n=1154, 33.38%), S aureus(n=350, 10.12%), Pseudomonas spp(n=301, 8.71%) and Corynebacterium spp(n=216, 6.25%). Among CoNS, the main isolated agent was S epidermidis(n=648). In mycotic keratitis, Fusarium spp was the most frequent in filamentous fungi (n=104, 35.62%) and C parapsilosis among yeasts(n=50, 17.12%). There were 1051 contact lenses wearers(23.49%). Individuals who wear contact lenses were 33.61 times more likely to have positive culture for Acanthamoeba(p'<'0.001) and 2.19 times for Pseudomonas(p'<'0.001). Individuals with previous ocular trauma and keratosprothesis were 2.04 times(p=0.004) and 3.21 times(p=0.033) more likely to have positive fungal culture, respectively. Individuals with more than 60 years were 1.55 times(p=0.002) more likely to have positive bacterial culture than individuals with less than 18 years

Conclusion:
There was a greater positivity of corneal samples for bacteria, followed by fungi. Among bacterial keratitis, CoNS were more frequent and among them, S epidermidis. In fungal keratitis, Fusarium spp was the most isolated agent. The chance of a positive result for Acanthamoeba and Pseudomonas was increased in contact lens wearers. Keratoprosthesis increased the chance of a positive result for fungi and age more than 60 years for bacteria

Keywords:
corneal ulcer, microbiology, epidemiology

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

(EP) EPIDEMIOLOGY

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THEME:

Infeccion
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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

99. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Lucas Zago Ribeiro - R3
e-mail: lucaszagoribeiro@gmail.com
CEP Number: 1271/2018

5. ABSTRACT (REQUIRED):

Title: Impact of SARS-CoV-2 Pandemic on Brazilian Ophthalmological Emergency Department Visits

Author and Co-authors: Lucas Zago Ribeiro, Luis Filipe Nakayama, Flávio Eduardo Hirai, Caio Vinicius Saito Regatieri

Purpose:
The unprecedented impact of the global pandemic of novel Severe Acute Respiratory Syndrome Coronavirus 2 on the healthcare system since December 2019 has overloaded intensive care units, and the implementation of restrictive social distancing measures has led to the postponement of nearly all non-urgent medical consultations and surgeries. This study evaluates changes in the epidemiological profile of patient visits to Hospital São Paulo Ophthalmological Emergency Department, since the beginning of the COVID-19 pandemic in Brazil.

Methods:
A retrospective analysis of patients admitted to the ophthalmology emergency department of Hospital São Paulo between January 1 and July 31, 2019, and January 1 and July 31, 2020, was performed. Charts without a declared medical diagnosis were excluded from the disease trends in both periods of analysis.

Results:
Visits in the study period after March 17 decreased 58.17% in 2020 (10,799 visits) compared with 2019 (25,817 visits). The mean visits per day decreased from 188.45 to 78.82. The mean patient age was similar in the two periods (41.17 ± 19.84 years in 2019 and 43.08 ± 18.33 years in 2020). The leading diagnosis in both the 2020 comparison period and pandemic period were acute conjunctivitis, blepharitis, and corneal foreign body. The highest increase in the proportion of diagnosis, between 2020 groups, was glaucoma (+2.46%), and the highest decrease was acute conjunctivitis (-17.24%).

Conclusion:
The changes wrought by the SARS-CoV-2 pandemic include a decrease in ophthalmology ambulatory medical appointments and altered availability of scheduled appointments. The present study found not only an important reduction in inflow of almost 60% but also changes in the proportions of leading diagnosis. The reduction in non-urgent visits is likely linked to social fear and the need to stay home. However, this study also reported a significant reduction in the total number of urgent visits. Delayed access to care could increase the risk of visual impairment. The significant reduction in acute conjunctivitis from 26.64% to 9.41% (p '<' 0.001, chi- squared test) could also be associated with the unprecedented change in social and hygiene habits due to the pandemic.

Keywords:
epidemiology; covid; emergency

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Cell therapy

Deadline: 10/2020

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Abstract should contain:

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

100. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Lucas Baldissera Tochetto - R4
e-mail: lucastochetto_34@hotmail.com
CEP Number: 4027896

5. ABSTRACT (REQUIRED):

Title: IMPACT OF COVID-19 INFECTION ON CORNEAL ESTHESIOMETRY

Author and Co-authors: Lucas Baldissera Tochetto, Dalton Santoro, Luciene Barbosa de Souza, Flavio Hirai, Denise de Freitas, Nancy Bellei, Lauro Augusto de Oliveira

Purpose:
To evaluate corneal sensitivity among individuals with COVID-19 symptoms.

Methods:
Individuals with suspected COVID-19 symptoms examined in an outpatient clinic at the Federal University of Sao Paulo from June to July were included in this study. Corneal sensitivity was measured during the first visit using the Cochet-Bonnet esthesiometer. Information about ocular symptoms and the presence of conjunctivitis were collected. All individuals were tested for SARS-COV-2 by nasopharyngeal swab test. Data were presented as mean (SD) or frequency (proportion). Comparative analyses were done using Student´s t test or the chi-squared test. All analyses were performed with Stata v.14 (College Station, Texas). All p-values less than 0.05 were considered statistically significant.

Results:
A total of 202 individuals were included in the study. Mean age was 37.5 (11.5), 136 (67.3%) were female, and 101 (50.2%) were PCR positive for SARS-COV-2. The mean scores for esthesiometry in the right and left eyes were 5.43 (0.85) and 5.56 (0.69), respectively. Comparison of mean corneal sensitivity by PCR status (negative vs. positive) in right eyes (5.41 (0.84) vs. 5.46 (0.86), p=0.646) and left eyes (5.62 (0.64) vs. 5.52 (0.72), p=0.329) showed no statistical differences. There was no association of corneal sensitivity with conjunctival hyperemia, presence of discharge or tearing.

Conclusion:
There was no association of corneal sensitivity and PCR positivity or the presence of ocular symptoms in this population.

Keywords:
sars-cov-2; covid-19; Corneal Diseases

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(CO) CORNEA AND EXTERNAL DISEASE

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THEME:

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Cell therapy

Deadline: 10/2020

FORMAT:

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Title
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Purpose
Methods
Results,
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101. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Yasmin Tournier Boppré - R4
e-mail: tournier93@gmail.com
CEP Number: 0715/2020

5. ABSTRACT (REQUIRED):

Title: Sensitivity profile to antimicrobials of microorganisms isolated from bacterial keratitis

Author and Co-authors: Yasmin Tournier Boppré, Camila Kase, Talita Trevizani, Maria Cecilia Zorat Yu, Ana Luisa Hofling-Lima

Purpose:
To determine the prevalence and the resistance profile of the most prevalent bacteria isolated from corneal samples from patients with infectious keratitis.

Methods:
Retrospective cross-sectional study which included the results of 5984 samples from patients with infectious keratitis, evaluated at the Laboratory of Microbiology in Ophthalmology at the Ophthalmic Department at Escola Paulista de Medicina, from January 2000 to December 2019. Analysis was performed by applying Pearson's chi-square test and Fischer's exact test, being statistically significant when p '<'0.05, and the years were broken down into four-year periods to compare trends between microbial susceptibility. The information obtained was included in a database developed in the Excel® for Mac program and the statistical analysis were performed using the SPSS® 16.0 software.

Results:
Most prevalent bacteria were coagulase negative Staphylococcus, S. aureus, P. aeruginosa, Corynebacterium and S. pneumoniae. Neomycin, oxacillin and vancomycin had little changes in sensitivity profile over the years. An apparent growth in the resistance to cephalothin and cefoxitin, which are tested only at gram-positive agents, and ciprofloxacin, moxifloxacin and ofloxacin, that are tested for both gram-positive and negative, and it was also noticed an increase in microbial resistance for both groups of bacteria. Finally, an higher sensitivity to chloramphenicol, tested for gram-positives, and amikacin, ceftazidime, gentamycin and tobramycin, for both gram positives and negatives, was observed over the two decades of follow-up.

Conclusion:
It was observed a tendency of rise in the resistance to moxifloxacin from gram positive and negative pathogens, a drug widely used as first choice in the empirical monotherapy treatment of keratitis. The most prescribed empirical scheme of fortified antimicrobials at our institution (tobramycin and gentamycin) remains with good coverage and sensitivity profile.

Keywords:
keratitis, corneal infection, antimicrobials, resistance

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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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THEME:

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Cell therapy

Deadline: 10/2020

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Purpose
Methods
Results,
Conclusion
Keywords

102. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Arieli Fernanda Pereira Santos - Fellow
e-mail: arielifernanda@gmail.com
CEP Number: 0

5. ABSTRACT (REQUIRED):

Title: Effects of cyclophotocoagulation with transscleral diode laser in the treatment of refractory Uveitic Glaucoma: Case series

Author and Co-authors: Arieli Fernanda P. dos Santos, Monique Kling Mangenon, Renan Dias, Yuslay Fernández, Carlos Eduardo Souza, Heloisa Nascimento, Cristina Muccioli, Rubens Belfort Junior

Purpose:
To analyze the effects of transscleral cyclophotocoagulation by a diode laser in the treatment of uveitic glaucoma refractory to clinical treatment in 4 patients during 5 years of follow-up.

Methods:
4 eyes of 4 patients with glaucoma, clinically uncontrollable, secondary to chronic uveitis / trabeculitis were treated by transscleral cyclophotocoagulation by a diode laser, which was the primary surgical treatment. The laser energy was 2000mW in a 2-second application. A total of 10-15 applications were made in 180 degrees of the conjunctiva. The absolute success rate was defined as maintaining an intraocular pressure of 21 mm Hg or less without medication in the absence of major complications.

Results:
The average follow-up was 48-60 months after the first treatment. The intraocular pressure was controlled in 75% of all eyes. No serious side effects were observed, such as activation of uveitis, phthisis bulbi, or persistent hypotonia. Only one patient had to repeat cyclophotocoagulation (25%), maintaining high blood pressure levels even after treatment. The absolute success rate was 75% (3 out of 4 eyes). The average intraocular pressure was reduced from 38 mmHg in the preoperative period to 19 (SD 12) mm Hg in the final follow-up (P = 0.004, paired t-test).

Conclusion:
Transscleral cyclophotocoagulation with diode laser using low parameters in the treatment of refractory uveitic glaucoma seems to be a safe and effective procedure and can become an alternative to trabeculectomy with antimetabolites.

Keywords:
uveitic,Transscleral cyclophotocoagulation,glaucoma

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(RE) RETINA AND VITREOUS

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THEME:

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Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

103. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Bruno Mauricio Rodrigues de Oliveira - Fellow
e-mail: brunomro@gmail.com
CEP Number: 1118-2018

5. ABSTRACT (REQUIRED):

Title: Effects of panretinal laser photocoagulation on the tear function and ocular surface.

Author and Co-authors: Bruno Mauricio Rodrigues de Oliveira, Jose Aparecido Job Neto, Denise de Freitas, Octaviano Magalhães Junior.

Purpose:
To evaluate tear function and ocular surface alterations after panretinal laser photocoagulation (PRP) in subjects with proliferative diabetic retinopathy.

Methods:
This is an observational and prospective study. All patients underwent ophthalmic examination of ocular surface with OCULUS Keratograph® 5M including tear meniscus height, non-invasive keratograph break-up time and ocular redness classification. Also, all patients were evaluated using the Ocular Surface Disease Index (OSDI) questionnaire. The exams were performed before the laser photocoagulation starts and repeated ninety days after the panretinal laser photocoagulation was finished.

Results:
So far, twenty eyes of ten subjects met the inclusion criteria and were recruited. After the panretinal photocoagulation, the patients demonstrated significantly lower NIBUT. The results for tear meniscus height and ocular redness classification were not statistically significant. Before the onset of PRP, 55% of the patients presented with severe dry eye disease.

Conclusion:
In conclusion, our data suggest that panretinal laser photocoagulation, in patients with proliferative diabetic retinopathy, can diminish break-up time of tear film.

Keywords:
diabetic retinopathy, dry eye disease, keratograph, panretinal laser photocoagulation, tear film

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(RE) RETINA AND VITREOUS

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FORMAT:

Abstract should contain:

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

104. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Felipe Picanço Muralha - Fellow
e-mail: felipe_muralha@hotmail.com
CEP Number: 2627718

5. ABSTRACT (REQUIRED):

Title: Comparison of the use of analgesic drugs in panretinal photocoagulation on patients with diabetic retinopathy

Author and Co-authors: Felipe Muralha, Alex Grupenmacher, Nilva Moraes

Purpose:
To expand our knowledge about the use of oral and topical analgesic drugs in panretinal photocoagulation (PRP) and to evaluate if: Ibuprofen, Metamizole (dipyrone), Fluormetolone and Ketorolac has a significant analgesic effect that justifies it\'s use in PRP procedures, comparing their effects.

Methods:
The patients will be randomized in 4 groups: Ibuprofen 400mg oral, Metamizole 500mg oral, Fluormetolone 0,1% topical and Ketorolac 0,5% topical. Every patient will have two exposures, and in both they will take one pill and use one eyedrop. In one of the exposures they will use the analgesic drug and a placebo (eye drop or pill placebo) and in the other exposure both the pill and eyedrop are going to be a placebo. Neither the patient or the doctor knows which drug the patient is taking, or if the exposure is a "treatment" or "placebo" one. Each session is going to be made in one of the patient's eye, using the same laser, which similar spot size, potency, number of spots, and same quadrants. After the procedure the patient will inform in the Visual Analog Scale the pain during the procedure, going from 0-10.

Results:
The study is currently in progress

Conclusion:
We hope that the drugs in the study present a relevant analgesic effect, possibly making their use a standard procedure for pain reduction in patients undergoing PRP

Keywords:
analgesic, panretinal photocoagulation, diabetic retinopathy

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2. **SCIENTIFIC SECTION PREFERENCE (REQUIRED):**

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(RE) RETINA AND VITREOUS

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Deadline: 10/2020

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Abstract should contain:

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

105. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Guilherme Eiichi Takita
e-mail: guilherme.eiichi@gmail.com
CEP Number: 0663/2019

5. ABSTRACT (REQUIRED):

Title: Subretinal Fluid Application to Macular Hole Closure

Author and Co-authors: GUILHERME EIICHI DA SILVA TAKITANI, MD, LUIZ FILIPE ADAMI LUCATTO, MD, NATASHA FERREIRA SANTOS DA CRUZ, MD, VINICIUS CAMPOS BERGAMO, MD, CARSTEN MEYER, MD PhD, MAURÍCIO MAIA, MD PhD

Purpose:
To evaluate the process of closure of full thickness macular hole (FTMH) using a novel surgical approach and the anatomical and functional results.

Methods:
Prospective clinical study designed for macular holes refractory to other surgical techniques or primary macular holes with low prognosis. The duration of the study will be one year, and the patients will be submitted to a novel technique described by Meyer et al [15]. The technical approach consists by pars plana vitrectomy with application of sub retinal fluid around the FTMH. All patients will be assessed by complete ophthalmological exam, optical coherence tomography, microperimetry and fundus photos.

Results:
Seven patients are eligible for the procedure, three male (42.86%) and four female (57.14%). The mean age is 69 years old, the elderly patient is 75yo and the youngest is 59yo. The time before the initial symptoms and the primary unsuccessful surgery was 36.8 months. The OCT measurements demonstrated large MH with medium external diameter of 1525?m and internal diameter of 936?m. All microperimetry findings showed abnormality in macular sensitivity.

Conclusion:
In progress

Keywords:
macular hole - subretinal fluid application - refractory macular hole

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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.

(TU) TUMORS AND PATHOLOGY

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Deadline: 10/2020

FORMAT:

Abstract should contain:

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

106. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Mayra Noves de Melo - Fellow
e-mail: mayranmelo@hotmail.com
CEP Number: 357409207

5. ABSTRACT (REQUIRED):

Title: OCULAR MANIFESTATIONS IN PATIENTS WITH AMYLOIDOSIS

Author and Co-authors: Melo, MN, Fernandes, AG, Morales, MC, Costa, MAN, Belfort, RN

Purpose:
To describe ocular findings in patients with amyloidosis from the, Ocular Oncology division from the Federal University of Sao Paulo.

Methods:
Retrospective study of medical record selecting patients diagnosed with amyloidosis in the period from 2010 to 2020. Data were collected on demography, age at diagnosis, previous ocular and systemic manifestations, family history and ophthalmic examination including visual acuity, tonometry, biomicroscopy and fundoscopy.

Results:
Three patients with diagnosis of ocular amyloidosis, were selected. Two were female and one male. Two had systemic rheumatological disease (multifactorial rheumatoid syndrome and rheumatoid arthritis). The average age of onset of symptoms was 51.66 years old and the average time between onset of symptoms and diagnosis confirmation was 8 months. From the ocular examination we found one patient with bilateral involvement with nasal and temporal conjunctival deposits of amyloid material (macroscopic aspect of calcium deposit). Another case had unilateral involvement with infiltrated gelatinous deposits in the lower eyelid tarsal conjunctiva. One case showed unilateral mechanical ptosis secondary to a modular lesion of about 3 cm in length with a gelatinous aspect. All patients had good visual acuity, intraocular pressure within the normal range and unchanged fundoscopy. An incisional biopsy of conjunctiva was performed in two cases, and deposits of amyloid material staining with Congo red were found. The patient with Multifactorial Syndrome performed liver and knee joint biopsy. Only the ptosis case, was treated with surgical removal due to aesthetic and visual acuity impairment. The others followed in the oncology service with good visual acuity and sporadic mild irritating symptoms.

Conclusion:
We were able to observe mild ocular symptoms of amyloidosis, which in 66.6% of the cases did not require surgical intervention as the disease did not compromise quality of life or pose a risk to vision. Although this pathology has severe spectra when affecting vital organs, our findings indicate that, when restricted to the eyes, the disease brings low risk for ocular functions and the surgical approach is recommended only in cases when visual quality is compromised.

Keywords:
amyloidosis; ocular; symptoms

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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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Deadline: 10/2020

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Co-authors (maximum 6)
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Methods
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Conclusion
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107. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Renata Farias Teixeira - Fellow
e-mail: renataft14@gmail.com
CEP Number: 04117-110

5. ABSTRACT (REQUIRED):

Title: Femtosecond laser-assisted Cataract Surgery in Patients with Uveitis

Author and Co-authors: Renata Farias Teixeira,Camila Mendes Costa Campelo,Letícia Pinto Coelho Jorge, Rubens Belfort Jr., Lincoln Freitas, Cristina Muccioli, Heloisa Nascimento

Purpose:
To report femtosecond laser-assisted cataract surgery in patients with uveitis.

Methods:
Case series. This study is a case series of patients with uveitis that were selected from the clinics of Escola Paulista de Medicina from March to October 2014. All patients were informed about the surgical procedure and signed an informed consent form. All patients underwent cataract surgery by the same surgeon (LF) using the femtosecond laser Alcon LenSx® Lasers Inc., Aliso Viejo, CA. It was evaluated as surgical outcomes: breaking posteriors synechiae, complete capsulotomy and zonular preservation.

Results:
16 eyes of 15 patients underwent surgery: 7 had 180 extension posterior synechiae, 4 360o extension posterior synechiae, 3 had white intumescent cataract with no synechiae and 2 subluxated lens with no synechiae. The laser was effective in the posterior synechiae disruption in 4 cases and performed a complete capsulotomy in two of these. The capsulotomy was effective in all cases of intumescent white cataract. There was no further zonular damage in lens subluxation cases.

Conclusion:
Femtosecond laser-assisted cataract surgery is an effective approach for cataract surgery in patients with uveitis, particularly with lens subluxation and intumescent white cataracts. No funding was received to write this paper. Process number: 00000

Keywords:
Cataract, Uveitis, Phacoemulsification, Ophthalmologic Surgical Procedures

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Methods
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108. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Cinthia Kim - PG0 DO
Advisor: Lauro Augusto de Oliveira
e-mail: jiehck@gmail.com
CEP Number: 4.229.677

5. ABSTRACT (REQUIRED):

Title: Ocular Graft-versus-host Disease in Allogenic Hematopoietic Stem Cell Transplantation in a Pediatric Population

Author and Co-authors: Cinthia Kim, Patricia Cabral Zacharias Serapicos, Flávio Eduardo Hirai, Cintia Monteiro Lutosa, Adriane da Silva Santos Ibanez, Victor Gottardello Zecchin, and Lauro Augusto de Oliveira.

Purpose:
We sought to determine the prevalence of ocular graft-versus-host disease (oGVHD) after allogenic hematopoietic stem cell transplantation (allo-HSCT) and characterize the risk factors associated with its development in a pediatric oncology center population.

Methods:
This retrospective chart investigation included 105 allo-HSCT patients during a four-year period (2014?2018) in whom the diagnosis of systemic and oGVHD was made by the treating hematologist in conjunction with an ophthalmologist in accordance with the National Institutes of Health consensus criteria definition. Data were collected and presented in contingency tables. Continuous variables were compared using the Mann?Whitney test and categorical variables were evaluated using Fisher?s exact test. In this study, p-values of less than 0.05 were considered to be statistically significant.

Results:
Systemic GVHD occurred in 44 of 105 (41.9%) allo-HSCT patients, predominantly in males (59.2%). Ocular GVHD was noted in seven of 44 (15.9%) GVHD patients. Risk factors including diagnosis, type of conditioning regimen, use of radiotherapy in conditioning, donor gender, type and source of transplant, human leukocyte antigen mismatch, and gender mismatch were not statistically significantly associated with the development of oGVHD. However, age was: oGVHD patients presented a higher mean age than those without ocular disease ($p = 0.015$).

Conclusion:
Although showing a relatively lower prevalence as compared with in adults, oGVHD, with its morbidity, remains a concern in post allo-HSCT pediatric patients. Regular ophthalmologic assessments after allo-HSCT are therefore recommended for the early detection and treatment of potentially problematic complications in pediatric patients.

Keywords:
graft-versus-host-disease, hematopoietic stem cell transplantation, ocular Graft-versus-host-disease, dry eye.

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Methods
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109. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Lydianne Lumack do Monte Agra - PG0 DO
Advisor: Mauricio Maia
e-mail: ly.agra@gmail.com
CEP Number: 266031031

5. ABSTRACT (REQUIRED):

Title: High particle variability across siliconized and oil-free syringes and needles from the same lots

Author and Co-authors: Lydianne Lumack do Monte Agra1,2 ? Natasha Ferreira Santos da Cruz3 ? Vaida Linkuviene4 ? John F. Carpenter4 ? Michel Eid Farah3 ? Gustavo Barreto Melo1,3 ? Maurício Maia3 1 Hospital de Olhos de Sergipe, Aracaju-SE, Brazil 2 Federal University of Sergipe,São Cristovão-SE, Brazil 3 Department of O

Purpose:
To assess the particle variability, including silicone oil (SO) droplets, released by tested syringes and needles used by ophthalmologists.

Methods:
We evaluated four syringes (SR 1-mL insulin, Saldanha-Rodrigues, BD 1-ml Tuberculin Slip Tip, Becton-Dickinson, BD Ultra-Fine 0.3 ml and HSW Norm-Ject Tuberculin, Henke Sass Wolf) and ten needles (BD PrecisionGlide 27- and 30-gauge, BD Eclipse and JBP Nanoneedle 27-, 30-, 33- and 34-gauge, and TSK Invisible Needle and 27 and 30-gauge Steriject Control Hub). The concentration and morphology of microsized particles were characterized using flow imaging microscopy. The number of particles was analyzed descriptively, and the coefficients of variation (CV) were the primary outcome measure. The Feltz and Miller test was used to compare the CVs. For all statistical tests, the significance level was 5%.

Results:
Numerous particles and a high CVs were associated with both devices. However, the comparisons among them did not reach significance. Regarding the syringes, the CV was highest with the BD Ultrafine 0.3 ml (149.7%) and lowest with the SO-free HSW Norm-Ject (66.4%) syringes. Regarding the needles, the CV was highest with the TSK Invisible needle (149.5%) and lowest with the BD Precision Glide 30G needle (35.9%) needle.

Conclusion:
All instruments demonstrated great variability in the release of particles, including SO, among samples from the same lot, which is clinically relevant considering that fewer particles are injected into some eyes compared with others in which significantly higher numbers of particles are injected

Keywords:
Intravitreal injection ? Needle ? Particle ? Silicone oil ? Syringe ? Variability

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Co-authors (maximum 6)
Purpose
Methods
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110. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Vivian Cristina Costa Afonso - PG0 DO
Advisor: Cristina Muccioli
e-mail: vivian_cris@yahoo.com.br
CEP Number: 3823200

5. ABSTRACT (REQUIRED):

Title: Frosted Angiitis

Author and Co-authors: Vivian C C Afonso Crsitina Muccioli

Purpose:
Frosted Angiitis (FA) is recognized as acute uveitis with severe sheathing along retinal vessel. Correct diagnosis of underlying disease is required to prompt treatment.

Methods:
Series of cases

Results:
Case 1: 8 years-old boy presented with loss of VA and cutaneous vesicular eruption. Fundus examination revealed retinal whitening and vasculitis (FA) in the RE and, an edematous disc, retinal whitening and edema along the posterior pole (cherry red spot) in the LE. Serological tests were positive for Varicela Zooster. He was treated with intravenous acyclovir and methylprednisolone .After 15 days improvement in the retinal vessels was observed. Case 2: 21 years old male, presented with oral and genital ulcers and complanined of ocular pain.Fundoscopy showed optic disc edema, macular edema, vascular tortuosity, intra retinal hemorrhage and vasculitis(FA) in RE. In the LE, was impossible because of corneal edema and rubeosis.The diagnosis of Behcet disease was made. He was treated with corticosteroids. Persistent macular edema was treated with antiVEGF. RE.Final VA was 20\40(RE) and NLP (LE). Case 3:40 years old female with HIV infection, complained of blurred VA. VA was 20\400 in both eyes. Fundoscopy showed retinitis with intra retinal hemorrhage inferior and FA were observed in both eyes.CMV was diagnosed for tipcal fundoscopy. She was treated with ganciclovir. After 30 days FA was no longer observed and final VA improved. Case 4: 35 years-old woman with decreased VA .She has SLE and anti phospholipid antibody syndrome and was using immunosuppressive therapy. Fundoscopy exam presented FA in RE. Pulse theraphy with ciclophosphamide was required. After 30 days FA improv

Conclusion:
FA has been described with systemic diseases or idiophatic. The mechanism for frosted angiitis is unknown. Some studies proposed that immune complex are arranged in affected vessels. Case 2 and 4 supports the immune complex theory of frosted angiitis. . Both cases were recognized in exacerbation of inflammatory disease. Case 4 presented FA despite the use of immunosuppressive therapy, being necessary complementary treatment. Meanwhile patients with HIV and frosted angiits secondary to CMV, may result of direct infection of the retinal vessels. Spaid et al suggest that CMV has tropism for vascular endothelial cells. Correlating the underlying disease allows to achieve the best final VA.

Keywords:
Frosted angiitis, Varicella Zooster, CMV, LUPUS , Behcet disease

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Author
Co-authors (maximum 6)
Purpose
Methods
Results,
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111. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Fábio Mendonça Xavier Andrade - PG1 DO
Advisor: Denise de Freitas
e-mail: fabio16.xavier@gmail.com
CEP Number: 2.287.094

5. ABSTRACT (REQUIRED):

Title: Meibomian gland dysfunction and ocular surface alterations following oral isotretinoin use for acne vulgaris

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

Purpose:
To evaluate the ocular surface and meibomian glands of patients with acne vulgaris, before and after the use of oral isotretinoin, using the meibography and objective parameters of the Keratograph®.

Methods:
Patients with acne vulgaris and indication for systemic oral isotretinoin with no prior use of the drug were treated with a fixed dosage of 0.5 mg/kg/day for three months at the Dermatology department. Ophthalmologic examination was performed before treatment and at the end of the three months period and consisted of best corrected visual acuity, Schirmer I test without anesthesia and the following parameters using the Keratograph®: tear meniscus height, conjunctival redness, Non-Invasive Keratograph Break-Up Time (NIKBUT) and meibography of superior and inferior meibomian glands of each eye. Ocular Surface Disease Index© (OSDI©) was applied before and after treatment to correlate dry eye symptoms with the objective results.

Results:
Fifty two eyes of twenty six patients were included. Mean age was 17,8 years (±3.01). All patients had best corrected visual acuity better than 20/30 and did not change after treatment. Schirmer test was lower than 10mm in 15% of patients before treatment and in 11% after treatment. Median tear meniscus height was 0.25mm (± 0.9mm) before treatment and 0.29mm (±0.12mm) after treatment. Mean conjunctival redness (grade 0 to 4) before treatment was 0.9 (± 3.5) and after treatment was 1.1 (± 4.4mm). Most patients had NIKBUT (grade 0 to 2) between grande 0 and 1 before and after treatment. OSDI increased in most patients after treatment. Most patients had alteration in meibography parameters (reduction of brightness and delineation of meibomian glands). Statistical analysis are in progress.

Conclusion:
Negative impact on dry eye symptoms and meibomian glands alterations can be seen after use of oral isotretinoin for acne vulgaris.

Keywords:
meibography; acne; ocular suface; isotretinoin; meibomian gland

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112. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Karine Koller - PG1 DO
Advisor: Cristina Muccioli
e-mail: karinekkoller@gmail.com
CEP Number: 01308-030

5. ABSTRACT (REQUIRED):

Title: The association of serum 25-hydroxyvitamin D levels and severity of autoimmune uveitis in a tertiary referral center for uveitis - a cross sectional study.

Author and Co-authors: Karine Koller, MD1, Fernandes Zamora, Yuslay, MD1, Cicero Galli Coimbra, MD, PhD2, Ricardo Pedro Casaroli- Marano, MD, MSc, PhD1,3, Cristina Muccioli, MD, PhD1. 1Department of Ophthalmology and Vision Sciences ? Federal University of São Paulo (UNIFESP), São Paulo, SP, Brazil. 2Laboratory of Neuro

Purpose:
To evaluate the association of vitamin D (D3) levels and severity of autoimmune uveitis (AIU).

Methods:
Preliminary cross-sectional descriptive study evaluated the 25-hydroxyvitamin D [25(OH)D] serum levels in cohort of patients with AIU of a tertiary referral center. Serum D3 levels, epidemiological data and uveitis severity were analyzed.

Results:
Adopting the cut-off value of 30ng/mL, 36/43 (83.7%) of the patients showed a lower level of vitamin D and only seven patients (16.3%) showed normal level of OH 25 Vitamin D. Regarding to vitamin D categorization, there was an association between abnormal level of Vitamin D and severity of uveitis (p=0.01). The Spearman test showed a moderate negative correlation (rho= -0.31, p=0.04).

Conclusion:
AIU patients presented with significantly lower serum D3 levels. We found an association between lower level of Vitamin D and severity of uveitis, suggesting that D3 deficiency may play a role in AIU pathogenesis and severity. However, prospective studies are necessary.

Keywords:
autoimmune uveitis, vitamin D, hypovitaminosis D, Th17, ocular immunity

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Methods
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113. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Leonardo Guedes Candido Marculino - PG1 DO
Advisor: José Álvaro Pereira Gomes
e-mail: leomarculino@hotmail.com
CEP Number: 793509170

5. ABSTRACT (REQUIRED):

Title: Prevalence and Risk Factors for Dry Eye Disease: the São Paulo Dry Eye Study

Author and Co-authors: Leonardo Guedes Candido Marculino, Rossen Mihaylov Hazarbassanov, Nicolle Queiroz-Hazarbassanov, Flávio Eduardo Hirai, Tais Hitomi Wakamatsu, José Arthur P. Milhomens Filho, José Alvaro Pereira Gomes

Purpose:
To estimate the prevalence and risk factors of dry eye disease (DED) symptoms and clinical diagnoses in São Paulo city, state of São Paulo, Brazil.

Methods:
582 participants over 18 years old, living in the east zone of Sao Paulo city responded to a short dry eye questionnaire. DED was defined as the presence of severe symptoms or previous clinical diagnosis of DED by an ophthalmologist. The association between DED and possible risk factors was assessed. Design: Cross-sectional prevalence survey.

Results:
Overall DED severe symptoms and/or clinical diagnoses prevalence was calculated as 24.4% for both sexes. Women presented a higher frequency of severe symptoms of DED(16.07%) than men(8.48%, p=.0244), as well as the composite of severe symptoms or diagnosed DED, presented by 26.86% of women and 18.18% of men(p=.0366). In women, ages between 55 to 75 years old were associated with DED severe symptoms (Odds ratio[OR], 3.11, 95% confidence interval[CI], 1.56?6.23, p=.001) and diagnosed DED (OR, 2.02, 95%CI, 1.04?3.93, p=.037). Hypertension was significantly associated with DED symptoms (OR, 1.98, 95%CI, 1.14?3.43, p=.015) and DED diagnoses (OR, 3.54, 95%CI, 1.92?6.53, p=.0001) in women. Eye drops use was associated with severe symptoms of DED and diagnosed DED in both women and men(p menor 0.01).

Conclusion:
Dry eye disease prevalence in São Paulo city is more frequent in women than men. Age and hypertension were determined to be the higher risk factors of DED for women, while eye drops use was a significant indicator of DED for both genders.

Keywords:
Dry eye disease, prevalence, risk factors of DED

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THEME:

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

114. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Ramon Antunes De Oliveira - PG1 DO
Advisor: Mauricio Maia
e-mail: ramonntt@gmail.com
CEP Number: 522922071

5. ABSTRACT (REQUIRED):

Title: Hydrogel polymer biocompatibility in vitreoretinal surgery.

Author and Co-authors: Ramon Antunes de Oliveira, Andreia de Araújo Morandim-Giannetti, Patrícia Alessandra Bersanetti, Felipe Muralha, Alex Treiger, Paulo Schor, Maurício Maia, Octaviano Magalhães Junior.

Purpose:
to determine in vitro and in vivo biocompatibility of hydrogel synthesized using polyvinyl alcohol (PVA) and sodium trimetaphosphate (STMP) as crosslinking agent, in vitreoretinal surgery.

Methods:
Twenty-eight New Zealand albino rabbits (2 kg weight approximately) undergone 25 Ga pars plana vitrectomy using a synthetized hydrogel polymer (HG) as vitreous substitute and balanced salt solution (BSS) in control group (CG) as vitreous substitutes. All animals had fundus image at Topcon TRC camera (Topcon, Tokyo, Japan), fluorescein angiography (FA) in Heidelberg Spectralis Device (Heidelberg Engineering, Heidelberg, Germany), Optical coherence tomography (OCT) in Spectralis OCT (Heidelberg, Germany) and electroretinogram (ERG) in RETI-port/scan 21 (Roland Consult, Bradenburg, Germany) at the day of the surgery (baseline), and one, four and twelve weeks later. Retina tissue samples were sent to optical histology. In vitro toxicity were evaluated in RPE19 cells culture through mitochondrial enzymatic activity.

Results:
Seventeen animals were euthanized due to retinal detachment or cataract formation during the surgery. Nine animals were at the HG and two at CG. One rabbit developed endophtalmitis and two developed cataract during the follow up in HG. We noted some opacification of the hydrogel polymer at fundus examination and OCT. The scotopic rods response and b-wave cons photopic response were reduced in HG during all the study. Histology from HG revealed intracellular hydrogel particules and retinal disorganisation.

Conclusion:
Hydrogel polymer revealed unsatisfactory biocompatibility, although reduced number of animals were evaluated. Further different biocompatible materials should be analyzed as an alternative to usual vitreous substitutes. FINANCIAL SUPPORT: FAPESP (2016/07468-6)

Keywords:
vitreous, biomaterials, polymer hidrogels

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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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115. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Thiago Gonçalves S. Martins - PG1 DO
Advisor: Paulo Schor
e-mail: thiagogsmartins@yahoo.com.br
CEP Number: 20541030

5. ABSTRACT (REQUIRED):

Title: Eye disorders in patients with celiac disease and inflammatory bowel disease: a study using clinical data warehouse in a hospital in Germany

Author and Co-authors: Thiago Gonçalves dos Santos Martins Aytan Miranda Sipahi Fabiana Maria dos Santos Paulo Schor Andreas Anschütz Christoph Kern Karsten Körtum

Purpose:
To analyze the prevalence of ophthalmic manifestations in patients with celiac disease, Crohn's disease and ulcerative colitis at a hospital in Munich/Germany using data ware house, and then compare it with other epidemiological studies that used other data acquiring methods. We would like to show that the data acquirement using data warehouse is fast, low cost and reliable.

Methods:
Retrospective chart analysis of patients with either Crohn?s disease, ulcerative colitis or celiac disease seen at the Ludwig Maximilians Universitat Ophthalmological Hospital between 2003 and 2019. All medical records containing the International Classification of Diseases, tenth revision (ICD -10), of celiac disease, Crohn's disease or ulcerative colitis were pulled up and analyzed using a data warehouse system. After all the data was analyzed, we compared our results with those results from studies developed in different countries using other methodologies.

Results:
A total of 272873 medical records were analyzed. Patients mean age was 53 years old, 48% female and 51% male. We selected 72 patients with celiac disease (68% female) and an age range from 8 to 103 years old a mean of 52 years old. The most common diagnoses in these patients were dry eye (32%) and cataract (12%). The mean intraocular pressure of patients with celiac disease was 15 mmHg. During the same period, 103 patients with Crohn's disease were analyzed, with a mean intraocular pressure of 14 mmHg. The age ranged from 12 to 93 years old with a mean age of 55 years old, 57% female and 43% male. The most common diagnoses in this group were cataract (22%) and dry eye (19%).During the same period, 99 patients with ulcerative colitis (64% males) were analyzed, with a mean intraocular pressure of 14 mmHg. Age range was 6 to 96 years old, with a mean age of 61 years old. The most common diagnoses were cataract (29,2%) and dry eye (12%). The studies we use to compare our results with also showed that dry eye was the most common eye condition in patients with celiac, Crohn's disease and Ulcerative Colitis.

Conclusion:
The use of a data warehouse has shown to be useful for the study of a large number of patients who were followed up for many years. The main ophthalmological manifestations requiring follow-up were dry eye and cataract for all of the diseases analyzed, which can be considered coincident conditions. None of the three diseases had increased intraocular pressure. Thus, celiac disease presented a profile of ophthalmological manifestation similar to the other intestinal inflammatory diseases studied. The use of the data warehouse proved to be a useful methodology for epidemiological studies, finding similar results than other studies carried out with other methodologies, but in a shorter time period and with less cost.

Keywords:
Celiac disease, eye, inflammatory bowel disease, Crohn?s disease; Ulcerative colitis; Eye manifestations; Ocular complications, data warehouse

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Purpose
Methods
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116. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Flávio de Ávila Fowler - R1
e-mail: flaviofowler@gmail.com
CEP Number: 4079011

5. ABSTRACT (REQUIRED):

Title: Sclerosing orbital inflammation in a middle-aged male patient: an IgG4-Related Ophthalmic Disease Case Report

Author and Co-authors: Flavio Fowler, Sabrina Cho, Luis Teixeira, Paulo Gois

Purpose:
Report a case about a patient with the ophthalmic presentation of IgG4-Related Disease and describe its rare clinical findings and exam results.

Methods:
Single retrospective case report.

Results:
A 50-year male presented to the service with progressive proptosis, painless intermittent periorbital edema and ocular hyperemia of the right eye for the last three years. No visual symptom was described. Laboratory work up showed polyclonal gammopathy in the serum protein electrophoresis. Orbital CT images showed lacrimal gland enlargement in both orbits and an extraconal lesion involving the right lateral rectus muscle with consequent proptosis of the right eye. A transpalpebral incisional biopsy of the right orbit (soft tissue, lacrimal gland and lateral rectus muscle) revealed lymphoplasmacytic infiltrate with dense infiltration of IgG4+ plasma cells. After clinical evaluation to stage the disease, oral therapy with methotrexate was started with a significant clinical improvement during follow up.

Conclusion:
This case reports an IgG4-related Ophthalmic Disease confirmed by an incisional biopsy in a middle-aged male patient with good response to methotrexate and no concurrent systemic disease so far. IgG4-RD is a recently recognized fibroinflammatory disease that once diagnosed should be referred for systemic evaluation and proper treatment as an earlier treatment may prevent highly morbid and even fatal consequences.

Keywords:
IgG4-Related Disease; IgG4-Related Ophthalmic Disease; orbital inflammation; proptosis

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Methods
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Keywords

117. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Guilherme Macedo Souza - R1
e-mail: gmacedo4@gmail.com
CEP Number: 4049060

5. ABSTRACT (REQUIRED):

Title: Unexpected neuro-ophthalmologic diagnosis at emergency room: case report

Author and Co-authors: Guilherme Macedo Souza, Letícia Sant?Ana Cardoso da Silva

Purpose:
The aim of this article is to report a case of coexistence of Leber?s hereditary optic neuropathy and optic neuritis due to inflammatory disorder diagnosed at the emergency room.

Methods:
Observational case report.

Results:
Twenty-four-year-old male patient, graffiti artist, admitted to emergency room complaining about blurred vision in both eyes for 8 days. Referred eventual use of marijuana and alcohol. Unremarkable medical, ophthalmological and family history. The visual acuity was counting fingers right eye and 20/200 left eye, he had normal pupil reflex with no relative afferent pupil reflex defect, normal anterior biomicroscopy and ocular motility. In both eyes, he had pink optic disc with blurred nasal margins, peripapillary telangiectasias, normal macula, normal vessels and attached retina. Laboratory exams were normal, including serologic tests and cerebrospinal fluid (CSF) analysis. Normal CT scans, but the MRI T2/FLAIR shows bilateral hypersignal in both optic nerves and multiple small hypersignal lesions at white matter. Ganglion cell analysis on OCT showed important diffuse bilateral loss at macular area. The patient was submitted to 5 days of pulse IV methylprednisolone therapy, evolved with visual acuity of 20/25 and 20/200.

Conclusion:
The MRI and the good response to pulse-therapy confirms that the patient presents an inflammatory disorder. Although, the ganglion cell OCT, the peripapillary telangiectasias and the history of methanol exposure (the patient is a graffiti artist, has contact with solvent products) suggest a toxic-metabolic/hereditary condition. A subset of Leber Hereditary Optic Neuropathy (LHON) can present a central nervous system involvement, and it has been referred as LHON-plus syndrome. When the LHON is associated to Multiple Sclerosis or neuromyelitis optic spectrum disorder (NMOSD), it has been referred as Harding?s syndrome. The patient still await for genetic testing and search for oligloconal bands in the CSF for diagnostic confirmation.

Keywords:
Neuro-ophtalmology, Leber hereditary optic neuropathy, LHON-plus syndrome, Harding?s syndrome

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

118. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Mariana Araujo Dias - R1
e-mail: marianadias1995@hotmail.com
CEP Number: 40441829

5. ABSTRACT (REQUIRED):

Title: Case report: Steven-Johnson syndrome with severe ocular involvement ? diagnosis, management and follow-up

Author and Co-authors: Dias, MA, Boro, RP, Kase, C

Purpose:
Steven-Johnson syndrome (SJS) is a dermatobulous condition, caused by late hipersensibility drug reaction, which leads to cutaneous and mucosal damage associated with ocular involvement in different stages in 50% to 88% of the cases. Ophtalmologist appraisal represents an important part of the patient care. Amniotic membrane transplantation is an option to severe ocular injury surface epithelium.

Methods:
Case report of a patient coming from different assistance with initial suspicion of hand-foot-mouth syndrome who developed oral ulcers, scaly dermatological lesions and severe bilateral corneal-conjunctival involvement.

Results:
In the primary ophtalmological exam, the right eye visual acuity (VA) was counting fingers at 1 meter and the left eye was counting fingers at 2 meters. In the anterior biomicroscopy of the right eye, diffuse hyperemia conjunctival, shortening of inferior conjunctival fornix, symblepharon, pseudomembrane on the tarsal conjunctiva and extensive corneal-conjunctival de-epithelialization were seen. In the left eye, diffuse hyperemia conjunctival, coarse keratitis and pseudomembrane on the tarsal conjunctiva were the ocular presentation. Pseudomembrane scaping daily, topic prednisolone acetate 1%, topic moxifloxacin 0.5%, topic sodium hyaluronate 0.15% and oral doxyciclin were introducted for the initial treatment. Patient responded partially, perfoming VA 20/80 in the right eye and 20/60 in the left eye. Hence, amniotic membrane transplantation was indicated to the right eye and after two months of treatment, patitent?s VA was 20/50 in the right eye and 20/30 in the left eye with corneal-conjunctival ephitelial reconstruction.

Conclusion:
Steven-Johnson syndrome is an immunologic disorder which may result in severe ocular involvement. Amniotic membrane transplantation has anti-inflammatory action and improves tissue recovery. Early diagnosis and effective treatment may avoid chronical eye conditions and allow a satisfactory visual outcome. This case report has no financial disclosure.

Keywords:
Steven-Johson syndrome, amniotic membrane transplantation, pharmacodermia

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Methods
Results,
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Keywords

119. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Thatiany Almeida Carvalho - R1
e-mail: thatiany_carvalho@hotmail.com
CEP Number: 4038030

5. ABSTRACT (REQUIRED):

Title: ORBITAL GRANULOMATOSIS WITH POLYANGIITIS IN A YOUNG PATIENT

Author and Co-authors: Thatiany Almeida Carvalho, Luiz Fernando Teixeira, Fabio Henrique Luiz Leonardo, Paulo Góis Manso

Purpose:
To report a case of orbital granulomatosis with polyangiitis in a young male patient of 12-year-old.

Methods:
Single observational case report.

Results:
A 12-year-old male patient presented with progressive and painless proptosis of the left eye with 5 years of evolution. Ophthalmological examination showed exophthalmos and restriction of ocular motricity on the left side. Skull and orbit tomography showed a heterogeneous infiltrative mass involving the intraconal space of the left orbit with ipsilateral proptosis. The diagnosis of granulomatosis with polyangiitis was confirmed by an incisional biopsy of the orbital lesion, that showed vasculitis in small-caliber vessels, noted by the presence of inflammatory cells, with a predominance of lymphocytes, infiltrating the vessel wall, with some eosinophils. Patient evolved with systemic involvement (glomerulonephritis and renal failure). The initial treatment was done with corticosteroids in pulse therapy and cyclophosphamide.

Conclusion:
Granulomatosis with polyangiitis is a rare and idiopathic multisystem autoimmune disease, rarer in children, that can affect the eye, with emphasis on orbital involvement, which manifests itself with progressive proptosis with or without pain. Considering that it could be the first manifestation of the systemic disease, the diagnosis should be considered in patients with proptosis of unknown cause or without response to therapy.

Keywords:
Granulomatosis with polyangiitis - Wegener's granulomatosis - orbit - proptosis

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120. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Guilherme Havir Bufarah - R2
e-mail: gui.bufarah15@gmail.com
CEP Number: 5015000

5. ABSTRACT (REQUIRED):

Title: Eyelid Trauma in a Tertiary Hospital: An Epidemiological Study

Author and Co-authors: Bufarah, GH, Ogoshi Jr, IK, Osaki MH, Osaki TH

Purpose:
To evaluate the epidemiology of lid and periorbital tissue trauma in a tertiary care hospital in São Paulo.

Methods:
Retrospective analisys of medical records of patients who underwent lid laceration repair from 2014 to 2020 in the department of Ophthalmology and Visual Sciences of the Federal University of S. Paulo. Main outcome measures were the cause/ mechanism of the trauma, the initial and final visual acuity, age and gender of the victim, if there was or not lacrimal system involvement, repair technique and if the patient had epiphora complaints.

Results:
Fifty subjects were analyzed, 12 (24%) female and 38 (76%) male patients. Average age was 21.2 years old (range 01-62). The main cause of trauma in children ('<'14 years old) was animal related, such as dog bites or scratches. In the adult population, the main cause was physical aggression and in older individuals (> 65 years of age?), the main cause was fall from the own height. The visual acuity could be evaluated in 28 patients. Twenty six (92,9%) had 20/32 or better visual acuity, meanwhile two of them (7,1%) were light perception or no light perception. There was no visual acuity loss in patients with no ocular involvement (lid only). The main visual acuity loss cause was corneal/scleral lacerations in open globe injuries. Twenty eight (56%) patients presented with lacrimal system involvement. The main technique chosen for lacrimal canaliculi reconstruction was the monocanalicular intubation with Johnson wire stent (11 patients). In these patients, epiphora complaint was not identified in 81,8% cases.

Conclusion:
Our results were compatible with previous studies that analyzed lid and periorbital trauma. Eyelid trauma is more common in young men, and dog bite is the main cause of eyelid laceration in children. In Brazil, the use of some devices that could be helpful for lacrimal pathway reconstruction, such as the Mini-Monoka silicon tube, is not approved by the Brazilian National Surveillance Agency (ANVISA). Thus, other techniques have to be employed for lacrimal canaliculi reconstruction, such as the Johnson wire stent.

Keywords:
Lid laceration, ocular trauma, lacrimal system, oculoplastics, dog bite, Johnson wire.

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121. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Mariana Chiba Ikeda - R2
e-mail: marianachibaikeda@gmail.com
CEP Number: 1154

5. ABSTRACT (REQUIRED):

Title: Is Reading Performance Impaired in Glaucoma Patients with Preserved Visual Acuity?

Author and Co-authors: M.C. IKEDA, A.H. BANDO, K.U. HAMADA, V.L.P. NAKAMURA, T.S. PRATA, A.J. TATHAM, A. PARANHOS JUNIOR, C.P.B. GRACITELLI

Purpose:
The purpose of this study is to evaluate differences in reading performance, between glaucoma patients and control participants

Methods:
?Total of 35 patients with open angle glaucoma and 32 healthy participants, with no ophthalmic comorbidities and visual acuity better than 0.4 logMAR in both eyes were included ?All patients had repeatable SAP and went through a reading performance test based on the MNREAD ?Speed-reading was assessed as the main reading performance variable ?The difference between reading performance and the best-corrected visual acuity (VA) of the better and worse eye for the two groups were investigated

Results:
?Mean age in glaucoma and control subjects was 65.71±13.80 and 60.03±10.67 years, respectively. ?The average reading speed in the glaucoma and control group on the first slide was 81.10 ± 22.50 wpm and 103.01 ± 30.02 wpm, respectively (p = 0.001). ? On the second slide, the average reading speed of the glaucoma and control group was 83.25 ± 27.64 wpm and 102.31 ± 28.81 wpm, respectively (p = 0.007) ? In the third, the average reading speed of the glaucoma and control group was 85.92 ± 30.25 wpm and 107.83 ± 31.27 wpm, respectively (p = 0.005). ? In the fourth, the average reading speed of the glaucoma and control group was 83.52 ± 30.98 wpm and 100.33 ± 21.43 wpm, respectively (p = 0.031). ? Finally, in the fifth, the average reading speed of the glaucoma and control group was 82.22 ± 24.51 wpm and 97.96 ± 32.18 wpm, respectively (p = 0.027). ? We could observe that the reading performance in the glaucoma group was significantly worse than the control group in all of our slides without any interventions. ?Average reading speed and MD of the SAP were assessed in a scattered plot model.

Conclusion:
We were successful at demonstrating significant differences between the reading performance in glaucoma patients when compared with healthy participants with no ocular comorbidities. Even when adjusting for visual acuity or other socioeconomic factors, the worsened reading performance in the glaucoma groups persisted. Further studies are needed to assess the real impact of such worsened reading performance in daily tasks to propose different interventions to improve reading performance in such patients.

Keywords:
Glaucoma; intervention; reading speed; reading; speed; contrast; line spacing; font size

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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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THEME:

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Angiogenesis
Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

122. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Gustavo Albrecht Samico - R2
e-mail: samico.gustavo@gmail.com
CEP Number: 1022/2019

5. ABSTRACT (REQUIRED):

Title: Ocular Surface Disorder and Number of Hypotensive Medications: How they affect Glaucoma Treatment Compliance

Author and Co-authors: G.A. SAMICO, T.S. PRATA, S.H. TEIXEIRA, R.Y. ABE, A. PARANHOS JR., C.P.B. GRACITELLI

Purpose:
The aim of this study was to evaluate whether dry eye disease due to hypotensive eye drops (one, two, three or more medications) have an influence in glaucoma treatment compliance.

Methods:
This was a prospective cross-sectional study including glaucoma patients from the Glaucoma division of the Federal University of Sa?o Paulo (UNIFESP). After completing the informed consent form, patients were submitted to demographic data collection, completed the Ocular Surface Disease Index (OSDI) questionnaire and the Glaucoma Treatment Compliance Assessment Tool (GTCAT). Complete ophthalmological examination was performed and they were also submitted to an objective analysis of the ocular surface by the ?Keratograph 5M?. Subjects were stratified into groups according to the amount of prescribed ocular hypotensive eye drops (1, 2, 3 or more medications), using for more than 6 months. Clinical and demographic data was also collected to correct as potential confounder factors.

Results:
Twenty-seven eyes of 27 patients with glaucoma were included, 6 (22.2%) using 1 medication, 13 (48.1%) using 2 medications and 8 (29.7%) using 3 hypotensive eye drops. The mean age was 70.92 ± 13.63 years old in the entire group. There was no significant difference in age, visual acuity (VA) and intraocular pressure (IOP) between groups. There is a significant difference in the standard automated perimetry (SAP) mean deviation (MD), showing association between the glaucoma severity and the number of hypotensive eye drops. There was a significant correlation between GTCAT and race, meaning that black patients were associated with higher GTCAT score (p=0.003)

Conclusion:
In our study, declared black patients were found to have a better treatment compliance compared to other races. Until present moment, there was no significant association between both subjective and objective parameters of ocular surface disease and glaucoma treatment compliance, despite the tendency for this findings. A larger sample size may be needed to determinate a weight of these factors in treatment adherence. More data is needed to identify other factors influencing glaucoma treatment compliance, such as dry eye disease.

Keywords:
Glaucoma; Treatment Compliance; Ocular Surface Disease;

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(EX) EXPERIMENTAL SURGERY

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

123. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Victoria Sakamoto - R2
e-mail: victoria.ksakamoto@gmail.com
CEP Number: 1234/2088

5. ABSTRACT (REQUIRED):

Title: Is it a Coloboma or Not? A new definition for isolated lens coloboma: focal zonular dysgenesis

Author and Co-authors: Nicole B Larivoir MD Paula M Marinho MD Ivan C Teixeira MD Gabriel B de Figueiredo MD Rodrigo A B Fernandes PhD Lincoln L Freitas PhD Victoria Sakamoto, MD

Purpose:
Ocular coloboma is defined as a congenital malformation caused by defective closure of the fetal fissure, resulting in a notch in any structure. However, the entity known as isolated lens coloboma doesn?t seem to have a similar etiological basis with other ocular colobomas, as the lens vesicle develops independent of the embryonic fissure and there is no real tissue defect in the lens itself. Regardless of the denomination, this congenital malformation can induce important decrease of the visual acuity and facectomy in these eyes has an increased risk for intraoperative and postoperative complications

Methods:
Retrospective analysis of patients (nine eyes of seven patients) who were diagnosed with ?isolated lens coloboma? and underwent phacoemulsification and implant of intraocular lens through different techiniques (performed by four different surgeons) and there outcomes regarding visual correction and long term follow up

Results:
There were no intraoperative complications. Two eyes (22,22%) presented postoperative complications, one of which was the IOL decentralization

Conclusion:
Considering the ocular morphogenesis and the definition of coloboma, the ideal denomination for the congenital malformation traditionally known as isolated lens coloboma would be ?focal zonular dysgenesis?. The best surgical approach, considering the cases described and the literature, is discussed.

Keywords:
"coloboma"; "focal zonular dysgenesis"

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(TR) TRAUMA

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

124. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Ana Carolina Yumi Itikawa - R3
e-mail: anaitikawa@yahoo.com
CEP Number: 1271/2018

5. ABSTRACT (REQUIRED):

Title: Ocular trauma in elderly patients: A Brazilian experience

Author and Co-authors: Itikawa, ACY, Zago, LR, Nakayama, LF, Bergamo, VC, Mendoza, JFW, Moraes, NSB

Purpose:
To evaluate the epidemiological data of ocular injuries among elderly patients admitted in the emergency room at tertiary hospital from January 2015 to June 2020.

Methods:
This retrospective and observational study analyzed medical records of elderly patients (? 60 years old) evaluated in the ophthalmological emergency room with ocular trauma history at Sao Paulo Hospital, Federal University of Sao Paulo (Brazil). Were considered codes of International Classification of Diseases 10th Revision (ICD-10): S01, S02, S04, S05, S06, S15. Patients were compared demographic data, trauma mechanism and classification, visual acuity and outcome, including hospitalization and procedures required.

Results:
In total, 406 elderly patients with eye injury. The mean age was 68.67 years, 63.05% were males and 36.95% were females. About ethnic groups: white 56.65%, mixed race 32.27%, black 9.36%, asian 0.49% and ?other" 1.23%. The majority seeks care at the same day of the trauma, but the mean time was 49.67 days. Closed globe trauma were 79.06% and open globe trauma 20.44%. The involvement of eye trauma: only eyeball 83.99%, only orbit involvement 1.57%, only adnexa 7.87%, eyeball with orbit 1.31% and eyeball with adnexa 5.25%. The most common cause of eye injuries were external agents (37.93%), followed by falls (17.98%). Domestic accidents were 10.84%, aggressions 8.13% and vegetable traumas 5.91%. Self-accidents or between peoples were 4.43%. Accidents with animals were 0.99% and only one run over (0.25%). Of total, 19.26% cases needed some procedure to repair injury. Before the trauma, 16.9% of cases already had blindness in one eye. The initial visual acuity was normal in 49.7%, subnormal in 11.6% and blindness in 38.6%. The visual acuity outcomes were registered in 184 patients, normal in 52.17%, subnormal in 7.07% and blindness in 40.76%.

Conclusion:
Ocular injuries in elderly patients in our sample were most commonly occurred in males due to external agents. The blindness and subnormal vision were almost half of the sample and worst outcome. So, vision rehabilitation and training of subnormal vision could decrease ocular trauma. Attention to individual (eye specially) protection equipment in work and domestic works may be considered. In elderly group, falls have to precaution attention also.

Keywords:
elderly, ocular trauma

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(NO) NEURO-OPHTHALMOLOGY

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THEME:

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Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

125. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Beatriz Nugent da Cunha - R3
e-mail: beatriznug@gmail.com
CEP Number: 40049520.5.0000.5505

5. ABSTRACT (REQUIRED):

Title: Neurophthalmological patients seen from 2018 to 2020 at Hospital São Paulo, regarding age group and disease distribution

Author and Co-authors: Beatriz Nugent da Cunha, Leticia Sant'Ana Cardoso da Silva, Luciana da Cruz Noia

Purpose:
Identify the diseases and their frequencies, as well as the age group, of all patients seen at the Neurophthalmology outpatient clinic of Hospital São Paulo from 2018 to 2020.

Methods:
Retrospective observational study through the analysis of medical records of all patients seen at the Neurophthalmology clinic, from 01/01/2018 to 09/09/2020. In the digital medical records, the patient's age, gender and main neurophthalmological disease were researched, the latter being subdivided into 9 diagnostic groups. Patients who did not have their medical records filled out correctly were excluded from the study.

Results:
1,817 patients were seen at the neurophthalmology clinic during the study period. After applying exclusion criteria, 1521 were eligible for analysis, of which 57% were women. The most prevalent age group within the female population was 50-59 years old and in the male group, 10-19 years old. As for the diagnosis, the most common group were tumors, followed by cranial nerve (CN) palsies and, in third place, Idiopathic Intracranial Hypertension (IIH). Of tumors, the most frequent was pituitary adenoma, in second position glioma and third, craniopharyngioma. The principal cranial nerve palsy was of sixth CN, followed by third CN. Among patients with IIH, 88% were female and the most prevalent age group was 30-39 years. Regarding optic neuropathies, ischemic were the most common. Among vascular diseases, prevailed isquemic stroke, aneurysms and arteriovenous malformation. Less frequent diseases were grouped in "Others", such as nystagmus, neuromuscular disorders and congenital abnormalities of the optic disc.

Conclusion:
Tumors were the most common diagnosis, due to referrals from GRAAC, a national reference service, increasing the rate of that disease in this clinic. CN palsies and optic neuropathies were more common after the age of 50. Neuritis and IIH prevailed in young adults. This paper opens the way for the development of future studies of focused analysis in each of the aforementioned pathologies.

Keywords:
Neurophthalmology, Cranial Nerve Diseases, Optic Neuropathy, Idiopathic Intracranial Hypertension, Optic Neuritis

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(CO) CORNEA AND EXTERNAL DISEASE

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THEME:

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Imaging
Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

126. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: José Arthur Pinto Milhomens - R3
e-mail: milhomens.af@outlook.com
CEP Number: 0428/2020

5. ABSTRACT (REQUIRED):

Title: Plasma Jet Use in the Treatment of Refractory Meibomian Gland Dysfunction

Author and Co-authors: José Arthur Pinto Milhomens Filho, Cristiane Okazaki, Marina Lourenço de Conti, José Álvaro Pereira Gomes, Rossen Mihaylov Hazarbassanov

Purpose:
The investigators propose a new treatment for refractory Meibomian Gland Dysfunction (MGD) patients with plasma jet to remove the hyperkeratinization layer from the lid margin to unblock terminal gland ducts and use thermal stimulation to enhance meibum delivery.

Methods:
A prospective, interventional clinical safety and efficacy trial with 4 patients from the Department of Ophthalmology at Escola Paulista de Medicina (UNIFESP) to determine the efficacy and safety of the treatment of refractory MGD patients with plasma jet on both upper and lower lids. Patients were submitted to an ophthalmology workup with best-corrected visual acuity (BCVA) (ETDRS chart) and dry eye questionnaires (DEQ-5 and OSDI). Bulbar redness, tear film meniscus height, noninvasive breakup time (NIKBUT), meibography under infrared light will be measured with Keratograph (Oculus®). Following, tear film osmolarity (i-PenTM), meibomian gland expression, and Marx line assessment. All exams were performed at the baseline and 30 days after the plasma jet application. Plasma jet was applied 3 times on both superior and inferior terminal gland ducts in the lid margins with Plasma Jet Medical Lift®, reaching only the superficial epidermis, after topical anesthesia with lidocaine 2.0%. Patients received ciprofloxacin 0.3% and dexamethasone 0.1% ointment after the procedure to use b.i.d. During follow-up (30 days) patients were using sodium hyaluronate 0,15% at the recommended dosage of twice a day.

Results:
Patients presented a significant improvement in the DEQ-5 scores (Wilcoxon single rang test, p=0.0218), a significatively decrease in bulbar redness (Pair t-test, p=0.0493) and MGD score in the upper eyelid (Pair t-test, p=0.0303), as well as a significant increase in tear meniscus height (Pair t-test, p=0.0078) at day 30. BCVA has not changed. OSDI score, lower lid meibography, tear film osmolarity, and meibomian gland expression changes were not statistically significant.

Conclusion:
The use of plasma jet in refractory MGD evaporative DED patients in this case series was safe and effective after a one-month follow-up. Further investigation is ongoing, particularly to compare its outcome in other ethnicities and have a longer follow-up time.

Keywords:
dry eye; meibomian gland dysfunction; plasma jet;

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(UV) UVEITIS

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Deadline: 10/2020

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Abstract should contain:

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

127. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Gabriel Ferrante Abou Murad - R3
e-mail: murad.gabriel@gmail.com
CEP Number: 04026-001

5. ABSTRACT (REQUIRED):

Title: Post-operative evaluation of patients with uveitis in a tertiary hospital

Author and Co-authors: Gabriel Ferrante Abou Murad , Carlos Eduardo de Souza

Purpose:
To assess the operative results of patients from the Uveitis division in a tertiary hospital from São Paulo. This is done by evaluating improvement in visual acuity, if there were intraoperative complications, and if there was uveitis recurrence after the surgery. Other information such as the time with no active uveitis until the surgery, the clinical diagnosis and the epidemiological profile of the patients were also analyzed.

Methods:
Retrospective observacional study via studying the medical files of patients from the Uveitis division of a tertiary hospital and were performed surgery during the year of 2019. Information collected includes: gender, age, etiological diagnosis, visual acuity before and after surgery, time length with no active uveitis before the surgery, recurrence of uveitis after the surgery, and intraoperative complications.

Results:
We collected data from 119 patients from 01/01/2019 to 31/12/2019, 64 female patients (53.8%) and 55 male patients (46.2%). The median age was 59 years (4-81). The most common surgery performed was phacoemulsification with intraocular lens implantation (PHACO+IOL) - 82 (69%) - but many other procedures, such as pars plana vitrectomy (with or without vitreous biopsy) - 21 (17.5%), inner limiting membrane peeling - 5 (4%), and phacoemulsification without intraocular lens implantation - 2 (1.5%), were also performed. From the PHACO+IOL group, 25 patients were excluded either due to insufficient data on the medical files or not having uveitis in the first place. The most common diagnosis on the remaining 57 patients were toxoplasmosis choriorretinitis (10 patients - 17.5%) and idiopatic uveitis (14 patients - 24.5%). Median time without active uveitis until the surgery was 24 months (mean: 29 months, ranging from 3 to 132). 17 patients had recurrence after PHACO+IOL (30%), with a median of 3 months after surgery (mean: 4.6 months, ranging from 1 to 13). Analyzing only the patients with recurrence, the median time with no inflammation prior to the procedure was 10 months (mean: 14.8 months, ranging from 3 to 36 months). Only 8 patients (14%) had intraoperative complications, such as posterior capsular rupture, vitreous loss, and dropped nucleus.

Conclusion:
In progress

Keywords:
Uveitis ; Phacoemulsification ; Vitrectomy

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(RE) RETINA AND VITREOUS

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Cell therapy

Deadline: 10/2020

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Abstract should contain:

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

128. FIRST (PRESENTING) AUTHOR (REQUIRED):
Name: Zaira Fernanda Martinho Nicolau - R3
e-mail: zairanicolau@hotmail.com
CEP Number: 0895/2020

5. ABSTRACT (REQUIRED):

Title: Cost-utility assessment of antiangiogenic therapy with bevacizumab for diabetic macular edema in the Brazilian public health system

Author and Co-authors: Zaira Fernanda Martinho Nicolau, Flávio Fowler, Luciana Arrais, Dante Akira, Nikoly Tigani Fares, Fernando Korn Malerbi, Flávio Eduardo Hirai, Octaviano Magalhães Júnior

Purpose:
To evaluate the cost-utility of intravitreal antiangiogenic injection from the perspective of a public health system on a 1-year time horizon. Also, its impact on the visual system of patients with diabetic macular edema (EMD).

Methods:
A retrospective chart review of patients with DME that underwent treatment with bevacizumab in 2019 was performed. Data regarding demographic information, comorbidities, visual acuity and previous treatments for DME were collected. The direct cost of the treatment was calculated by micro-costing. The cost-utility assessment was expressed in R$/QALY earned. The established significance value is 5%.

Results:
A total of 135 eyes were included in this study. There were 61,48% of male and 38,52% of female patients, with a mean age was 64 ± 9 years old. 41,48% of these patients had previous bevacizumab injection and 21,48% had another treatment for DME. The mean number of bevacizumab injections in this study was of 3,24 ± 1,23. 25,92% of the patients decreased their visual acuity, 31,85% maintained and 42,44% improved. The visual acuity change after 1-month of the last bevacizumab injection was of 0,37 ± 2,53 lines. The annual cost of bevacizumab for DME per person was of R$285,26, with a gain of 0,29 QALYs, resulting in a cost-utility ratio of R$983,65/QALY earned.

Conclusion:
Most patients experienced a maintenance or improvement in visual acuity 1-month after treatment with bevacizumab for DME. This procedure is considered a cost-effective treatment, according to the World Health Organization definition, since it costs less than 3x the Brazilian gross domestic product per capita, which would be R$103.599,00.

Keywords:
diabetic macular edema; bevacizumab; cost-utility

2020 Research Days Abstract Form

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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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THEME:

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

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CEP Number: 1177/2018

5. ABSTRACT (REQUIRED):

Title: Epidemiological analysis, clinical features and outcome of patients with peripheral ulcerative keratitis treated at the corneal sector of UNIFESP.

Author and Co-authors: Polliana Alvarenga Rodrigues, Denise de Freitas

Purpose:
To analyze the epidemiological and clinical characteristics of patients seen at the service of external eye and corneal diseases at the Federal University of São Paulo between July 2015 and July 2020, through the review of medical records.

Methods:
A retrospective observational study was carried out by analyzing the medical records of patients diagnosed with peripheral ulcerative keratitis treated at the External and Corneal Diseases Service at the Federal University of São Paulo between July 2015 and July 2020. Data such as gender, age, time of symptom onset, visual acuity, pathology of the conjunctiva, clinical evolution and treatment.

Results:
Thirty-six eyes from 26 consecutive patients with peripheral ulcerative keratitis (PUK) were evaluated. Of these, 16 belonged to male patients, while 10 were female. The minimum age of patients was 40 years and the maximum was 92 years. Ten patients had bilateral ocular involvement, while 8 presented only in the right eye, and 8 in the left eye. Of the 26 patients, 16 had previous systemic disease and 3 already had another previous eye disease. The best visual acuity of entry was 20/20 and the worst PL (light perception). The time of evolution of the first symptoms was ? 1 month in 16 patients, while 10 patients had symptoms for more than 1 month. Regarding rheumatological tests, 15 patients have some positive marker, while 5 presented positive serological tests. The etiological diagnosis of PUK remains unknown in 7 patients. Rheumatoid arthritis was the main diagnosis, with 9 patients, followed by small vessel vasculitis, tuberculosis, rosacea, herpes, hepatitis C, sweet and mooren with 3, 2 and 1 case respectively. Topical corticosteroid treatment was used in 25 of the patients, while oral corticosteroids were used in 21 patients. Immunosuppression was necessary in 15 patients.

Conclusion:
Peripheral ulcerative keratitis (PUK) is a rare and serious entity, and can often appear as a harbinger of a serious systemic disease, with a high risk of morbidity and mortality. Therefore, the ophthalmologist needs to be able to recognize the pathology and investigate its causes, so that, together with the rheumatologist, appropriate therapy can be initiated.

Keywords:
peripheral ulcerative keratitis; keratitis; PUK

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Cell therapy

Deadline: 10/2020

FORMAT:

Abstract should contain:

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

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5. ABSTRACT (REQUIRED):

Title: Chronic Ocular Sequelae in Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis of Brazilian patients

Author and Co-authors: Rafael Jorge Alves de Alcântara, Myrna Serapião dos Santos, José Álvaro Pereira Gomes, Tais Hitomi Wakamatsu

Purpose:
To describe the epidemiological features of Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN), evaluate the clinical aspects and long-term ocular morbidity in patients with chronic visual sequelae.

Methods:
This was a cross-sectional study of patients with the diagnosis of SJS, TEN, and SJS/TEN overlap who were admitted to the External Disease and Cornea division during 2013 - 2020. Clinical records were retrospectively reviewed. The associations between patient age at onset, exposed drugs, acute systemic and ocular involvement and the prevalence of chronic ocular sequelae were examined.

Results:
From a total of 88 patients we identified SJS in 81, TEN in 6, and SJS/TEN overlap in 1 patient. Mean age at onset was 21,08 years old (7 months ? 58 years old), 48 females and 40 males. There was prior drug administration in 95,5% of the patients and most common implicated medication was dypirone (39,8%). The acute manifestations were cold symptoms at the onset (67,04%), high fever (67,04%), nail loss (92,04%), eyelashes alopecia (64,77%), oral lesions (96,59%), corneal erosion (29,55%) and severe conjunctivitis (97,73%). The prevalence of chronic ocular sequelae were: keratinization of the eyelid margin (57,95%), symblepharon (63,64%), eyelid malposition (35,23%), Limbal stem cell deficiency (87,50%), trichiasis (68,18%), corneal keratinization (27,27%), forniceal retraction (31,82%) and the most common was dry eye syndrome (96,59%).

Conclusion:
The prevalence of chronic ocular sequelae is high among SJS and TEN patients. Late complications can lead to visual impairment and may be related to age at onset, exposed drugs, systemic and ocular involvement at the acute phase. Strict ophthalmological follow up is paramount to avoid sight threatening conditions, restore the ocular surface and rehabilitate visual function.

Keywords:
Stevens-Johnson syndrome; toxic epidermal necrolysis; ocular sequelae; dry eye syndrome

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