2ND EUROPEAN MEETING OF YOUNG OPHTHALMOLOGISTS

Theme: **Update in Ophthalmology**

ABSTRACT BOOK

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OP1 Optical coherence tomography angiography in branch retinal vein occlusion: analysis of retinal nonperfusion area and macular and retinal ganglion cell layer thickness

Ana L. Basílio, Lívio Costa, Luísa Vieira, Rita Flores

Purpose: To analyze the area of retinal nonperfusion in eyes with branch retinal vein occlusion (BRVO) and its relation to macular and retinal ganglion cell layer (RGC) thickness.
Methods: A total of ten eyes with ischemic BRVO were evaluated by Optical Coherence Tomography Angiography (Cirrus HD-OCT Angiography, Zeiss). Nonperfusion findings and macular and RGC thickness were evaluated, in a 6 mm x 6 mm macular area. Patients with retinal edema and other ocular or systemic diseases, that could influence macular and RGC thickness, were excluded.
Results: In BRVO eyes, the area of nonperfusion in deep capillary plexus tends to be larger than in superficial plexus. The ischemic area was coincident with areas of decreased macular and RGC thickness, with preservation of the external retina. Other areas of macular and RGC thickness decrease, non-related to ischemia, were detected.
Conclusion: Optical Coherence Tomography Angiography is a noninvasive imaging technology that allows the analysis of capillary plexus and structural changes. In ischemic BRVO, deep capillary plexus is more involved than superficial plexus. Ischemia seems to be related to a decrease thickness of internal retina, but other pathophysiological mechanisms may also play a role.

OP2 Simultaneous bilateral acute angle closure glaucoma by sulfa-derivative drugs: ¿dose dependant or idiosyncratic reaction?

Carlos E. Chau, Julia A. Fajardo, Pablo J. Mazagatos

Introduction: Acute Angle Closure Glaucoma (AACG) in both eyes is potentially blinding side-effect of some systemic medications, such as the sulfa derivative drugs (SDD).
Purpose: To describe, analyze and compare the mechanisms of physiopathology of the AACG produced by SDD, and it's relation with the dose and time of exposure. Methods: Cases report, use of BMU, review of the literature.
Results: A 47-year-old woman with history of migraine headache presented sudden bilateral blurred vision and periorbicular pain after her daily dose of topiramate, increased from 25 mg to 50 mg per day. Visual acuity (VA) was 20/100 bilaterally, eyes showing fixed pupils, anterior chamber shallowing with advancement of the lens, closed angles on gonioscopy and elevated intraocular pressure (IOP; 62 mm Hg OR, 58 mm Hg OS). Topiramate was discontinued and antihypertensive therapy was initiated. The refractive exam showed a new error: –4.50 diopters of myopic

shift in both eyes. Five days later, VA was 20/25 with deep anterior chambers, IOPs normalized and angle structures were visible. A 65-year-old woman came with ocular pain, red eye, vision decrease, headache and vomiting. Her medical history showed hypertension treated with indapamide 2.5 mg for the last 5 years. Her VA was 20/70 both eyes with a new myopic shift of -5.0 diopters OR and -3.5D OS. We found shallow anterior chamber, closed angles on gonioscopy and glaucomeckons in both eyes. The IOP was 48 OR and 40 mm Hg OS. An UBM exam revealed bilateral ciliochoroidal effusion. Indapamide was discontinued and antihypertensive therapy initiated. After a week her VA was 20/30 OR and 20/20 OS, IOP was 18 and 20 mmHg, and BMU showed a normal anterior segment.
Conclusions: The relevant feature in the presentation of AACG by SDD is the uveal efussion that produces rotation of ciliary body and anterior move of the lens.The increase of the dose has not yet been demonstrated as a risk factor, but the role of idiosyncracy is fundamental.

OP3 The Outcomes after MIGS implantation in glaucoma patients

Lívio Costa, Sara Crisostomo, Joana Cardigos, Teresa Gomes

Purpose: Glaucoma filtration surgery allows to the formation of a new drainage pathway of aqueous humor from the anterior chamber to the subconjuntival space. XENgel Stent is a new collagen implant that stays permanently in the eye and which the main goal of this surgical procedure is to maintain the intraocular pressure in normal range for a long period.
The authors present the first outcomes after XENgel stent implantation alone or in combination with cataract surgery.
Methods: This article analyzes the first results after implantation of the XENgel stent in 7 Caucasian patients (8 eyes). The mean follow-up period was 3 months after surgery. The same surgeon has made all procedures in Glaucoma's Department of Central Lisbon Hospital.
Results: The implantation was performed in 4 men and 3 women, with mean age of 69.25 years. 7 eyes had Primary Open-Angle Glaucoma and one had a Pseudo-Exfoliation Glaucoma. The mean pre-operatively IOP was 23.88 (range 14-40) mmHg with the highest medical therapy. In general the surgery has occurred without complications and the first day mean IOP was 12.88 (range 8-23) mmHg. After the first month the mean IOP was 17.29 mmHg, 5 patients has kept low IOP values with good filtration and 3 had higher IOP (23-24mmHg) with flat filtration bleb. We've executed a massage on the bleb of those 3 patients. After the second month, 2 patients had IOP over 40 mmHg. They were undergone YAG-LASER without improvement. IOP has impaired to values ranging between 12 to 14 mmHg after needling.
Conclusions: In the present study, 5 patients had good outcomes after the implantation of XENgel Stent. The remaining 3 patients were undergone additional procedures to

maintain low IOP values. This stent offers as a new perspective of reliable therapy to IOP reduction, with a safety and minimal invasion, impairing the risks. Any operatory complication was recorded. A higher sample and follow-up period will be necessary to determine if this technic increase advantage to the traditional procedures.

OP4 Intraocular pressure measurement using applanation resonance tonometry and Goldmann applanation tonometry – a comparative study

Wojciech Czak, Agnieszka Rafalska, Ewa Wałek, Olaf Fuchs

Introduction: Glaucoma is one of the leading causes of blindness worldwide. Intraocular pressure (IOP) measurement is the only confirmed modifiable element of glaucoma diagnostics and treatment. Accuracy of IOP result is therefore vital for glaucomatous patients' management. Goldmann applanation tonometry (GAT) remains the gold standard of IOP measurement. Increasing awareness of errors resulting from the corneal shape and thickness, the axial length and other biochemical characteristics urges the need for a more independent measurement method. The applanation resonance tonometry (ART) seems like such an opportunity.
Purpose: The aim of the study was to compare intraocular pressure (IOP) measurment results using Goldmann Applanation Tonometry (GAT) and Applanation Resonance Tonometry (ART).
Methods: 154 subjects, including 41 patients with primary open-angle glaucoma (POAG) and 36 from the control group (82 and 71 eyes respectively) were examined. All subjects had their measurements performed using the GAT and ART tonometers; tests evaluating the central corneal thickness (CCT) had also been carried out.
Results: The IOP measurements obtained with ART overestimated those from GAT, which was the case for both the glaucomatous and the control group. The results were unrelated to the CCT values.
Conclusion: ART results turn out to be of a good repeatability. Our study shows that ART is a promising IOP measurement technique. After further adjustment of over 23mmHg IOP results' accuracy and evaluation of corneal properties impact on the measurement it could become a new gold standard for IOP measurement.

OP5 Compressive optic neuropathy as the first manifestation of Paget's disease previously unknown

Javier Foncubierta-Villamañán, Víctor M. Asensio-Sánchez

Background/introduction: Paget's disease is a disorder of bone remodelling affecting 1-2% of the general population, most frequently men over 50 years of age. Most persons with Paget´s disease are asymptomatic. Changes in vision may occur secondary to optic nerve involvement.

Purpose: The purpose of this report is to describe the clinical and histopathologic findings in a patient with compressive optic neuropathy caused by orbital Paget's disease.
Methods: We report the case of a 78-year-old female who previously was diagnosed of right non-arteritic anterior ischemic optic neuropathy. She presented with gradual painless diminution of vision for a 12-month period and a relative afferent pupillary defect in the right eye. Examination showed normal motility and non axial proptosis without resistance to retropulsion. Fundus examination showed optic nerve atrophy. Computerized tomography demonstrated an expansile, isodense mass in the right posterior ethmoid sinus with lateral displacement of the optic nerve in the right orbit. Compressive optic neuropathy caused by posterior ethmoid sinus lesion was diagnosed. A transnasal endoscopic exploration of the right ethmoid sinuses demonstrated a hard lesion. Tissue biopsy showed Paget´s disease.
Results: No previous description of optic neuropathy as the first manifestation of Paget´s disease was found in the literature. The present case, initially misdiagnosed as ischemic optic neuropathy, presented a visual defect of 1-year duration secondary to an unknown polyostotic Paget's disease. Imaging studies and biopsy were diagnostic.
Conclusions: Although optic nerve compression in the orbit associated with Paget´s disease is unusual, it should be considered in the differential diagnosis of older patients with a slowly progressive visual defect. Compressive optic neuropathy can be rarely caused by Paget´s disease in the posterior ethmoid sinus as the first manifestation of the disease.

OP6 Limits of surgery in invasive epithelial malignancies of the eyelid in elderly patients

Meriem Laadhari, Leila Knani, Narjess Ben Rayana, Fafani Ben Hadj Hamida

Introduction: Epithelial malignancies of the eyelid are invasive if having large size of the tumour, in depth or orbital extension and when occurring in the medial canthus. Large surgical excision and exenteration of the orbit may be scanty. Radiotherapy should be considered but complications and recurrence may occur.
Purpose: To report the results of surgery and radiotherapy in our serie and discuss the prognosis of eyelid invasive epithelial malignancies.
Methods: We conducted a retrospective analysis of 23 invasive epithelial malignancies of the eyelid: 12 squamous cell carcinoma and 11 basal cell carcinoma. In all cases, tumour size was greater than 4 centimeters. At the first examination, no metastasis was seen. 16 patients underwent a surgical excision of the tumour; 7 had a primary radiotherapy.

Results: Surgical resection was incomplete in all 16 patients; in 14 cases, in depth histological margins were tumoral. An adjuvant radiotherapy was programmed after surgery in 14 cases. 2 patients underwent a second surgical excision; and then a complementary radiotherapy in one case. In cases treated by primary radiotherapy, the tumour persisted in 5 patients. 2 patients died within 8 months after treatment. After surgical resection with post operative radiotherapy, the recurrence rate was 35.7% (5 patients/14). One patient died as a result of metastasis seen 5 years after treatment.
Conclusions: Surgical excision of invasive malignancies of the eyelid is often large and destructive, requiring sometimes exenteration. In elderly patients, this treatment may be difficult. Recurrence rate is greater after primary radiotherapy than after primary surgical removal.

OP7 Orbital exenterations: reconstructive techniques

Patricia de Leyva, Manuel Picón, Marco Sales-Sanz, Julio Acero

Background: Orbital exenteration, is a radical procedure that involves the removal of the contents of the orbit. This results not only in visual dysfunction but also in psychosocial disability for the patients. The reconstructive procedure should be adapted to the extent of the defect and the individual needs of the patient.
Purpose: To review the different options and reconstructive technique after orbital exenteration.
Methods: A retrospective review of 50 consecutive patients who underwent orbital exenteration between 1990 and 2012 is presented. The reconstructive techniques used are reviewed.
Results: Fifty patients (29 men and 21 women) with a mean age of 71 years underwent orbital exenteration. Squamous cell carcinoma was the most frequent tumor removed (30%). The eyelids were the most common site for the primary neoplasm (32.7%). The temporalis muscle flap was the main technique used for reconstruction (62.2%). Other options were the radial forearm free flap, the ALT flap, the conjunctiva-eyelid sparing technique and the reconstruction with and orbital prosthesis, which can be retained by osseointegrated implants.
Conclusions: Orbital exenteration is a disfiguring procedure that results in a functional, aesthetic and psychological impact for the patients. Its main goal is to increase survival. For these reasons, both the extension of surgery and the reconstructive technique should be carefully planned in advance. Reduced morbidity in old patients, tolerance to radiotherapy and the possibility to accommodate a prosthesis are issues that need to be taken into account.

OP8 **Ocular ischemic syndrome and glaucomatous surgery**
Dilbar Makhkamova

Purpose: Analysis of the mechanisms of development of ocular ischemic syndrome after glaucomatous surgery.
Methods: The material for this study is based on data of 14 patients who underwent glaucomatous surgery. The age of patients ranged from 58 to 73 years. Of these, 5 females and 9 males. In all patients at different times after surgery was diagnosed OIS. This diagnosis is based on clinical manifestations of the syndrome and sharp disturbance of hemodynamic parameters in the main vessels of the eye and the brachiocephalic trunk.
Hemodynamic parameters were evaluated using a multifunctional ultrasonic instrument («VOLUSON 730 PROGE»), was conducted by contact transpalpebral method in 3-D mode.
Results: In 14 patients at different times after antiglaucomatous surgery developed OIS. In all cases, the surgery was without complications. In 3 patients OIS was set at 10 – 12 days after surgery, at 7 after 20-22 days, at 4 patients after 1 month surgery was diagnosed OIS.
Computed perimetry noted concentric narrowing of the boundaries at 6, sectoral loss in 4 patients, MD, on average -11,43 ± 0,892 ($p < 0,05$), PSD on average 10,25 ± 0,843 ($p < 0.05$).
At Doppler ultrasound was recorded hemodynamically significant asymmetry of blood flow: internal carotid artery – in 9 patients, common carotid artery – in 7, external carotid artery – in 5 patients.
Conclusion: Hemodynamically significant changes in the main vessels of the brachiocephalic trunk and the body trigger the development of ocular ischemic syndrome in these patients after antiglaucomatous surgery. Considering the above, before penetrating operations cause changes in perfusion pressure of the optic nerve should be a comprehensive examination of patients, including Doppler main vessels brachiocephalic trunk and eyes that will help to diagnose and carry out adequate therapy OIS.

OP9 **Atypical manifestations of ocular toxoplasmosis – A case presenting with optic nerve involvement**
Nuno Moura-Coelho, Arnaldo Dias-Santos, Isabel Domingues, Fernando Pinto-Ferreira

Background: Ocular toxoplasmosis (OT) results from Toxoplasma gondii infection, which may occur in utero or postnatally. It more commonly affects children and young adults. Immunocompromised individuals are more susceptible and may present with more severe manifestations.

OT presents as uveitis which may involve any part of the eye, including panuveitis. Posterior uveitis is the most common form of presentation; OT is one of the most frequent etiologies of posterior uveitis, and may be the most frequent infectious cause of retinochoroiditis.
Diagnosis of OT is usually straightforward, with the classic appearance of focal retinochoroiditis, usually with a nearby retinochoroidal scar, and severe vitritis. However, some patients present with less common, atypical manifestations in the posterior segment, including involvement of the optic nerve (ON), described in 5% of cases of OT.
Purpose: To present a case of OT with ON involvement and discuss the issues regarding diagnosis, treatment and prognosis of this rarer manifestation of the disease.
Methods: We revised a case of OT with involvement of the ON from our institution.
Results: A 40 year-old, previously healthy, female patient presented with decreased visual acuity (VA), photophobia, and pain in her left eye (OS). Best corrected VA for OS was counting fingers at 0.5m. Biomicroscopy examination revealed panuveitis, with «headlight in a fog» sign; clinical diagnosis of OT was made, and treatment initiated. At 3 months' follow-up, BCVA showed no improvement; panuveitis resolved, leaving a temporal juxtapapillary retinochoroidal scar associated with ON atrophy. Optical coherence tomography (OCT) has been scheduled.
Conclusion: Involvement of the ON is a relatively rare finding in OT. It may occur in isolation or in association with other lesions. OCT may be of use in assessing the ON and peripapillary retinal layers in this condition. Visual outcome is variable but may improve with treatment.

OP10 Submacular recombinant tissue plasminogen aactivator injection in the management of the submacular haemorrhages

Leticia Ortega-Evangelio, Javier Navarrete-Sanchis

Introduction/Purpose: Recombinant tissue plasminogen activator (rtPA) has long been recognized as an effective fibrinolytic agent in acute cardiovascular or cerebrovascular strokes, but it has not been until recently when it has been used in the management of submacular haemorrhage.
It can be injected either subretinally or intravitreally and, used in conjunction with other drugs.
In this article, we report the outcome of six consecutive cases of submacular haemorrhage treated with submacular rtPA injection, following pars plana Vitrectomy (PPV).
Methods: We report six consecutive cases of submacular haemorrhage secondary to Age Related Macular Degeneration (ARMD). All of them underwent a central 23-G PPV, followed by a submacular injection of rtPA 25µg over the haemorrhage.

C3F8 14% was used as internal tamponade at the end of the surgery and face-down position was recommended in the postoperative period. AntiVEGF agents (ranibizumab/aflybercept) were used in a second time if needed.
Results: All the subjects were operated within the first two days after the diagnosis. The size of the subretinal haemorrhage ranged from 2 to 4 disc diameters(DD). Total blood displacement from the foveal area was achieved in all cases with a mean improvement of VA of one Snellen line posoperatively.. No complications were reported during the follow-up period.
Conclusions: Submacular rtPA injection with face-down positioning under C3F8 is effective in the management of the submacular haemorrhages. The early treatment is an important factor to obtain a VA improvement.

OP11 Myopic choroidal neovascularization: a three year follow up of patients treated with photodynamic therapy and Ranibizumab vs. Ranibizumab alone

Sofia Rodrigues, Irina Gomes, Joana Neves, Marta Vila

Introduction/Background: Ranibizumab has been proven to provide superior visual acuity gain in the treatment of myopic choroidal neovascularization (mCNV) when compared to photodynamic therapy with verteporfirin (PDT). However in everyday clinical practice we're often confronted with mCNV patients requiring treatment after PDT, leading us to question how much will a patient benefit from ranibizumab after previous PDT?
Methods: Retrospective analysis of 32 patients (32 eyes) with mCNV treated with ranibizumab on a pro re nata regimen. 16 patients previously submitted to PDT were matched for pre-treatment best corrected visual acuity (BCVA), age and spherical equivalent to 16 treatment naïve patients. Post treatment BCVA, central foveal thickness (CFT) and number of injections administered were evaluated at 36 months.
Results: Average BCVA improved from 47 letters (ETDRS) pre-treatment to 51 letters at 3 years in the PDT + Ranibizumab group, and 56 letters in the ranibizumab only group. Final CFT was significantly lower in the PDT group (200 µm vs. 270 µm). Average number of injections was 2 for both groups in the first year, diminishing in the succeeding years. 50% of patients did not require further treatment beyond the third year of follow up, independent of treatment protocol.
Conclusions: Intravitreal ranibizumab is an effective alternative in the treatment of mNVC with a high percentage of patients attaining an improvement or stabilization in BCVA at 3 years, independent of previous PDT treatment. Previous PDT was associated with greater central foveal atrophy.
Keywords: Myopic Choroidal Neovascularization; PDT; Ranibizumab.

OP12 Anatomical and functional outcome following intravitreal injection of Ocriplasmin in patients previously treated with anti-VEGF therapy (Ranibizumab or Aflibercept)

Silvia O. Salceanu, Vasant Raman

Background: Intravitreal ocriplasmin injection (Jetrea®) represents a pharmacologic treatment option for patients with symptomatic vitreomacular traction (VMT) and macular hole (MH) not associated with epiretinal membrane.
Purpose: To evaluate the resolution rate of VMT after intravitreal injection of Ocriplasmin.
Methods: 33 eyes underwent injection of intravitreal Ocriplasmin. Only one eye from each patient (age 48 – 95) underwent treatment. 24.24% (n=8) of patients were previously treated with anti-VEGF intravitreal injections for wet age related macular degeneration (AMD) and diabetic macular oedema (DMO). All 8 patients had VMT without MH with an average VMT adhesion of 344.5 micrometers.
Results: None of the patients with previous anti-VEGF therapy had posterior vitreous detachment after intravitreal injection of Ocriplasmin.
Conclusion: It is not clear why the patients that had previous intravitreal injections with anti-VEGF don't seem to respond to Ocriplasmin. We presume this is due to abnormal anatomical vitreo-retinal adhesion in this subgroup of patients.

OP13 Evaluation of changes in iris and anterior lens capsule of the eyes with pseudoexfoliation syndrome

Erbil Seven, Muhammed Batur

Introduction: Pseudoexfoliation (PXF) syndrome is a well-recognized clinical entity of considerable clinical significance that is associated with poor mydriasis, cataracts with weak zonular support, secondary glaucoma and possibly with biochemical abnormalities.
In this study we aimed to evaluate changes in iris and anterior lens capsule of the eyes with PXF syndrome by anterior segment optical coherence tomography (ASOCT).
Material and Methods: In this prospective study, 41 eyes of 28 subjects with PXF syndrome (group 1) and 29 eyes of 21 subjects without PXF syndrome (group 2) were examinated by ASOCT. Midperipheral iris thickness, horizontal pupil diameter, PXF material thickness (central and peripheral), anterior capsular thickness (central and peripheral) were measured by Spectralis ASOCT.
Results: Mean age was 65.75±10.02 (44-78), 65.15±9.82 (47-84) in group 1 and group 2 respectively. Anterior kapsular thickness were 20.76±3.9 (central), 22.37±4.14 (temporal) in group 1. Anterior kapsular thickness were 18.83±2.04 (central), 20.97±3.18 (temporal) in group 2. We found statistically significant difference

between group 1 and group 2 in anterior kapsular thickness in peripheral (p=0.03). However, there was no statistically significant difference between group 1 and group 2 in anterior kapsular thickness in central (p=0.062). Horizontal pupil diameters were 5538.8±105472, 6463.75±1002.74 in group 1 and group 2, respectively. There was statistically significant difference between group 1 and group 2 in horizontal pupil diameter(p=0.004). Midperipheral iris thickness were 462.95±106.67, 523.72±82.12 in group 1 and group 2, respectively. There was statistically significant difference between group 1 and group 2 in midperipheral iris thickness (p=0.042). PXF material thickness were 20.06±7.05(central), 27.63±13.36 (peripheral) in group 1.
Conclusion: PXF syndrome effects iris and anterior lens capsule. Mydriasis decreases in eyes with PXF.

OP14 Efficacy evaluation of endoscopic cyclophotocoagulation in glaucoma patients

Marta P. Wiącek, Tomasz Miszczuk, Andrzej Lipiński, Andrzej Palacz

Background: Although endoscopic cyclophotocoagulation (ECP) was introduced in 1992, little is known about its effectiveness and safety.
Purpose: To evaluate the intraocular pressure (IOP), medications and complications of ECP in patients with glaucoma at 1 year follow-up.
Methods: Data were collected from glaucoma patients treated with ECP in 2014-2015. Preoperative and postoperative examinations were made on the first and seventh day and at 1 year after the surgery (11.84±3.71 months). Visual acuity and IOP [mmHg] were measured. Patients' anterior segment condition was established in a slit lamp examination. IOP ≤15 was considered therapeutic success. P<0.05 was considered statistically significant.
Results: The study comprised 52 eyes (47 patients). The mean preoperative IOP was 25.24 (±9.72), which decrease by the first (80.65% of patients) and seventh (92.11% of patients) day, and at 1 year (94.12% of patients) after ECP. The mean IOP decrease in a corresponding examinations were 13.12, 10.61 and 10.36 mmHg (p<0.05) respectively. Therapeutic success was achieved in 32 patients (65.38%). Having glaucoma history of >10 years significantly decreased the therapeutic success rate (Odds Ratio, 0.087; CI, 0.008-0.996; p<0.05). The number of patients requiring more than two IOP lowering medications decreased significantly from 24 to 14 after 1 year of follow-up (p<0.05). A significant decrease of IOP in a fellow eye, from 18.13 (±9.82) to 15.5 (± 7.86), was also detected (p<0.05). One week after ECP, 13 (25%) patients had distorted pupil, 11 (21.15%) had IOP elevation, 9 (17.31%) required mannitol infusion and 2 (3.85%) had fibrinous uveitis. Further IOP lowering surgical procedures were performed in 3 patients (5.76%).
Conclusions: ECP is an effective and safe procedure. ECP significantly decreases IOP in the operated and fellow eye, and the number of required medications. Glaucoma history of >10 years may affect the IOP lowering effect at 1 year follow-up.

VD1 **Congenital eversion of the upper eyelid**
Cristina Abascal, Pablo Plaza

Introduction: The congenital eversion of the upper eyelid is an unusual condition. A small number of cases have been described in the literature and the pathogenesis remains unknown.
Purpose: The purpose of this report is to describe a case of congenital bilateral upper eyelid eversion with marked chemosis that was successfully managed conservatively.
Methods – Results / Case Report: The patient was a thirty-minutes-old female neonate with bilateral congenital upper eyelid eversion and marked chemosis, following meconium in the waters birth and normality in the rest of the delivery.
Conservative management consisted of the application of prophylaxis antibiotic ointment, manual eyelid repositioning and bilateral eye occlusion with steri strips during the night. The eyelids reverted spontaneously after twelve hours and the condition was completely resolved by the first week.
Conclusions: Congenital upper eyelid eversion is an uncommon condition which responds well to conservative treatment. It is important to convey the easy managing of this entity to achieve complete resolution and prevent further complications.

VD2 **A tale of an intraocular pellet**
Laura B. Alfaya, Marta Pradas, Edgar J. Infantes, Fernando González del Valle

Introduction: The treatment of intraocular foreign bodies is complicated and requires urgent intervention by an experienced surgeon. We report the case of an ocular perforation with an intraocular foreign body secondary and an iris hernia from the gateway.
Purpose: To describe the management of the complications that can be associated to an open-globe injury that has an intraocular foreign body.
Methods: A 31-year-old male suffered of an ocular perforation with an intraocular foreign body due to a pellet rifle shooting. An urgent vitreo-retinal surgery (23 gauge four-port pars plana vitrectomy) was performed in order to repair both the ocular perforation and the iris hernia. To remove the intraocular lead bullet we used a diamond coated foreign-body forceps. Incarceration of the superior retinal detachment through the sclerotomy was resolved in the same surgery changing the port of entry from a superior access to a temporal access. A silicone oil exchange was done at the end of this first surgery. Lensectomy plus scleral buckling surgery was performed 6 months after the first due to an inferior retinal detachment that caused the retina to fold back on itself. Viscodisection technique was used to resolve the folding. Finally a third surgery was performed to treat the aphakia.

Results: After 3 years of medical monitoring the visual acuity is 20/100. Optical coherence tomography reveals retinal thickness with no retinal folding.
Conclusions: Many different and unsuspected complications can occur during intraocular foreign body surgeries and it is necessary to use different surgical approaches or even more than one surgery. The first and urgent surgery performed by an experienced surgeon could lead to a better outcome for patients in these cases. The use of silicone oil could be the best option to avoid rebleeding and retinal detachments in the inmediate postoperative period, avoiding so further severe complications months or years after the injury.

VD3 Boston type I keratoprothesis implant surgery
Nathalia Avalos, David Díaz, Ricardo Cuiña, Marina Sastre

Background/Introduction: Boston type I Keratoprothesis (KP) has become a useful technique in patients needing corneal transplant and exhibiting important limbar insufficiency or have already rejected corneal transplants before and maintaining good eyelid function and adequate ocular surface. According to the Boston KPro user guide, the main indication is repeated corneal transplant failure (2 times or more) with poor prognosis for a third transplant. The best corrected visual acuity must be less than 0.05 (or 6/120 20/400), in absence of advanced glaucoma or retinal detachment.
Purpose: To describe Boston Type I KP implant surgery + Removal IOL in LE of a patient with Fuchs Dystrophy and bilateral bullous keratopathy secondary to cataract surgery. History of 2 PK failure in each eye, 2 AMT in LE and high risk of another transplant failure because of important corneal neovascularization.
Methods: Case Report.
Results: The VA before surgery was CF at 1 meter in LE. The patient had no intraoperative complications, or in the immediate postoperative period. After one year-follow-up in our center, the VA in LE is 0.1. The BMC of LE, the KP is well positioned, no signs of infection or extrusion. Digital IOP within the normal range, with stable RNFL OCT.
Conclusions: The use of keratoprothesis is indicated in corneal and ocular surface pathology with high risk of penetrating keratoplasty failure with proper maintenance of eyelid function and ocular surface. It is a highly technical surgery, with severe possible complications and high cost of the device, although in clearly indicated cases, it is a surgical treatment option that can improve patient´s quality of life.

VD4 Evisceration: our technique of choice
Inês Coutinho, Catarina Pedrosa, Diana Silva, João Cabral

Introduction: Evisceration remains an useful technique in some ophthalmological situations such as trauma, phtisis bulbi or endophtalmitis. The main complications

are orbital socket syndrome and implant exposure. However modern evisceration techniques with sclerotomies reduced the incidence of these complications, allowing better results. For the authors, the favourite evisceration technique is based in Massry and Hold's surgery.
Purpose: The purpose of this paper is to show in a video the preferable evisceration technique of the authors, highlighting the main steps and precautions to have in order to achieve good postoperative results.
Methods: Surgical technique video.
Results: Evisceration with 2 anterior relaxing sclerotomies and circumferential posterior sclerotomy permits the use of a large porous implant (22 mm) with a good anterior closure and less wound tension.
This technique minimizes implant exposure and socket syndrome and allows a good cosmetic and functional outcome.
Conclusion: A careful and systematic surgical technique is important to achieve good results. The described technique is simple, quick and effective.

VD5 Inferior oblique fadenoperation: a new weakening technique

Gonzalo García de Oteyza, Juan García de Oteyza

Background: The inferior oblique overaction is a condition that can be found in many strabological situations such as superior oblique palsy, elevation in adduction syndrome or V pattern. Translation of the insertion (anteroposition, recession) has been until now the gold standard technique to treat it. The main complication of these techniques is the antielevation syndrome.
Purpose: To describe a new technique for inferior oblique overaction and present our first results in six patients.
Methods: Inferior oblique fadenoperation consists in anchoring the whole inferior oblique body to the sclera at 8 mm of the inferior rectus insertion. This technique will act as a recession-resection but leaving the muscle postequatorially. Six patients with different presentations were operated with this technique. In 4 of them an anteroposition was done in the fellow eye.
Results: All the cases improved the inferior oblique overaction and none of them presented with antielevation syndrome. No complications were observed neither during the surgery nor during the postoperative follow-up.
Conclusions: Although the number of cases is still low, we can conclude that inferior oblique fadenoperation is an effective, reversible and safe technique to treat inferior oblique overaction.

VD6 **Pterygium surgery may be a lesson of humility for a young ophthalmologist**

Trinidad Infant, Marta Pradas, Edgar J. Infantes, Fernando González del Valle

Introduction: Becoming a good surgeon implicates more than learn the correct technique or enhance the ability; young ophthalmologists must know the limits of the results and complications of surgeries.
Pterygium surgery is widely considered, perhaps wrongly, as one of the simplest; so many residents perform it at their starting years. Nevertheless, despite the easy it could seem, it may turn complicated; being necessary to know management alternatives.
Purpose: To show in a video how, an amply known as a simple procedure like pterygium surgery may become a complicated one or not be enough to solve this corneal disease.
Methods: In our video we evidence the successive four surgeries that was needed to treat this case (a little pterygium in a 35 years old man, with a history of sun exposure and red eye):
1st. Liberation and extraction of the pterygium from the cornea and the conjunctiva. There was a recurrence three months later.
2nd. Same procedure as before, but now using a free conjunctive graft at second step. In a month, the patient return with more inflammation due to the suture.
3rd. Removal of remaining stitches and injection of subconjunctival bevacizumab and triamcinolone acetonide.
4th. We must to repeat this injection four months later.
Results: The patient was maintained with bevacizumab drops during four months after the last surgery. There was no recurrence one year later, but sometimes his eye becomes red again.
Conclusions: This case shows us how one surgery could not be the solution for a pterygium, even in the little ones. There may be complications as recurrences, inflammatory reaction to stitches and secondary chronic inflammation. Surgeons can see ourselves in the need for more surgeries or other treatments. So this is an example that sometimes, a considered as a simple surgery, can give us a lesson; is important to remember, especially for younger ophthalmologists in formation, always face with humility the surgical learning process.

VD7 **Transscleral fixation of foldable intraocular lenses-own expirience**

Katarzyna Kozicka, Joanna Miniewicz, Agnieszka Kubicka-Trząska, Bożena Romanowska-Dixon

Introduction: Aphakia is a common problem in ophthalmology practice. It may be caused by trauma, as a complication after cataract surgery, or due to congenital disease.

Aim: The aim of this study is to present our method and the results of transscleral fixation of foldable intraocular lenses treatment.
Methods: Study group consisted of 22 eyes of 20 patients (6 female, 14 male). In 12 cases indication was traumatic lens disorder, 2 due to congenital diseases and 6 as a complication after cataract surgery. In 13 eyes was perform transscleral fixation of secondary foldable lens, in 3 eyes reposition and fixation of dislocated foldable intraocular lens. In 6 eyes was necessary to remove dislocated/subluxated intraocular lens from posterior segment and transscleral fixation of secondary foldable lens. In all cases was performed combination of 25G pars plana vitrectomy and intra scleral hiding sutures technique (Z-sutures) to fixate the lens. Secondary foldable lens was implanted through small (2,4mm) corneal incision. Postoperative mean follow-up was 6 months. We evaluated visual acuvity without correction before and after surgery, changes in corneal astigmatism and number of postoperative complications.
Results: In all patients postoperative uncorrected visual acuity was improved, there was no postoperative changes in astigmatism. In a study group there were no postoperative complications reported.
Conclusion: Our studies shows that transscleral fixation of foldable intraocular lense is safe and effective technique for treatment of aphakia. Use of small corneal incision helps to avoid postoperative changes in astigmatism. Simultaneously conduction of 25G pars plana vitrectomy helps to achive good lens centration, avoid vitreoretinal tractions and migration of vitreous body to the anterior chamber. Intra scleral hiding sutures technique (Z-sutures) helps to avoid postoperative exposure of sutures through the conjunctiva, makes procedure faster and easier.

VD8 Covering of exposed valve tube using donor cornea

Ana Filipa Miranda, Sandra Barros, Sonia Parreira, Paula Telles

Valve tube exposure is a rare complication of valve implant, althought its resolution can become a challenge.
The authors report a case of a 66-year-old man diagnosed with fuchs heterochromic iridocyclitis and glaucoma in his left eye. Since glaucoma continued to progress despite treatment with maximum antiglaucoma topical drugs, patient underwent Ahmed valve implant with an overlying pericardial patch graft.. Intraocular pressure (IOP) stabilized around 13mmHg but 6 months after surgery observation revealed exposure of the valve tube. Many covering grafts were used unsuccessfully and tube was finally covered with a full-thickness donor cornea and overlying amniotic membrane. The video of this last surgery is presented. Six months after surgery IOP is stable around 15mmHg and the tube is covered.
In conclusion, valve tube exposures, even if refractory to other patch grafts covering, can be sucessfully treated using donor cornea.

VD9 **Stressless glued intraocular lens**

Marta Pinilla, Hugrún Hallsteinsdóttir, Antonio Palomino, Alfredo Fernández

Background: Intraocular lenses implantation (IOL) in eyes without a posterior capsular support can be accomplished with a transscleral IOL fixation. There are different procedures to do it such as: transscleral needle fixation of an IOL, the glued IOL technique, or the Y-fixation technique that attaches an IOL without large lamellar scleral flaps and fibrin glue.
Case: We present the case of a traumatic corneal perforation which required an emergency surgery to suture it, and resulted in superior anhiridia. Afterwards he developed cataract and a posterior lens luxation to vitreous that required a twenty three gauges vitrectomy and a stressless Glued IOL because of its lack of capsular support or iris support.
Material and Methods: We performed a Glued IOL technique described by Argawal (2007) that consists in fixating the three pieces IOL into two scleral pockets. We have designed a steel stainless device to clip the haptics and join them to a suture in order to manipulate the IOL in the anterior chamber without risk of falling down into the vitreous. These are the device dimensions: total length 1.5 milimeters (mm), main diameter: 0,650 mm, small diameter: 0.430 mm, inside diameter (suture): 0,2 mm; 5-0 suture diameter: 0,140 mm; haptic diameter: 0,140-0,150 mm; forceps used: 23 Gauges Max grip. This device is still a prototype that needs to be smaller in order to keep it intrascleral permanently.
Purpose: Through this video we want to show the advantages of the Stressless glued IOL technique step by step.
Results: These new procedure minimizes the posibility of IOL luxation and surgical trauma and the final result is a well fixed posterior chamber IOL with good IOL centration and visual accuity as we show in our case.
Conclusions: The Glued IOL assisted offers a safe, and stressless transscleral IOL fixation. Given the surgically demanding nature of these techniques, the surgeon's comfort level should also dictate the approach to IOL fixation.

VD10 **Surgical treatment of retinal hemangioblastoma**

Andreia Soares, Nuno Gomes, Fernando Vaz

Introduction: Retinal hemangioblastoma may occur sporadically as a solitary tumor or associated with Von Hippel-Lindau (VHL) disease. Commonly, it occurs as an orange globular lesion with afferent and efferent vessels. Despite of the slow growth pattern, it can be associated with vision loss, glaucoma and uveitis in advanced cases. Depending on the size, localization and number of tumour lesions, various treatment modalities are reported in the literature, including observation, laser photocoagulation, cryotherapy, radiotherapy or vitreoretinal surgery.

Purpose: To demonstrate a possible treatment of a retinal hemangioblastoma, with pars plana vitrectomy.
Methods: A 41-years-old female, presented to the hospital with sudden loss of vision of her right eye (OD). The best corrected visual acuity (BCVA) was hand motion in OD and 10/10 in her left eye(OS). The fundus examination of OD showed one lesion in temporal-superior quadrant, which was orange and globular, associated with vitreous bands, tractional retinal detachment, exsudation and subretinal fibrosis. After de diagnosis of retinal hemangioblastoma, the systemic study was required to exclude VHL disease. 23G pars plana vitrectomy was realized due to the presence of retinal detachment. After vitrectomy and posterior hyaloid detachment, the dissection of vitreous bands and peeling of pre-retinal membranes were done. Endodiathermy of the feeding vessels, retinotomy and resection of the lesion were the next steps. Endolaser was performed around the retinotomy area and silicone oil tamponade was done.
Results: Despite the patient had reported an improvement of the visual acuity after the surgery, the BCVA remained «hand motion». The retina was totally reattached, under oil silicone, one month after surgery.
Conclusion: Vitrectomy is a good therapeutic option to consider in retinal hemangioblastomas associated with retinal detachment. Follow up is required because of the risk of progression and recurrence.

VD11 Suture- and glueless amniotic membrane transplantation «tuck-in technique» assisted by femtosecond-laser

Karina Spiess, Ana Boto

Introduction: The amniotic membrane (AM) forms the innermost avascular layer of the placenta. Biological properties are lack of immunogenicity, promotion of epithelization and inhibition of fibrosis, angiogenesis and inflammation. In bullous keratopathy AM can be used as a graft (epithelial side up) acting like a scaffold to achieve a smooth surface reepithelization.
Purpose: Video showing a different technique of placing an AM-graft for bullous keratopathy (BK) assisted by femtosecond laser, without sutures or biological glues.
Methods: Female 81 years with a 4-year evolution of painful BK of her left eye with history of numerous complicated surgeries. Her visual acuity was of counting fingers with optic disc atrophy. The patient underwent a sutured AM transplantation 2 years before with recurrent episodes of epithelial defects and superinfection. Conservative treatment with bandage contact lenses (BCL) and antibiotic prophylaxis was applied until new surgery. Technique: With the femtosecond laser we perform a full lamellar and a lateral anterior cut of 9.5mm/230µm and 7.5mm/250µm(diameter/depth), respectively. The flap of epithelium and partial-stroma is separated; the AM is punched out with a 10mm-corneal trephine; the corneal pocket is filled with

viscoelastics and the AM epithelial side up is tucked into the pocket. Finally, a BCL is placed onto the graft.
Results: After 3 weeks the cornea was reepithelized and the AM integrated subepithelially. The patient felt free of pain without further need of BCL or suture removal. Visual acuity remained constant.
Conclusion: We propose a safe, minimal invasive and quick surgical technique without need of sutures or fibrin glue. No displacement or disgregation of the AM occurred in the early postoperative. It is useful in elderly patients with high comorbidity and/or eyes with poor visual potential. Full reepithelization occurred after 21 days being the patient asymptomatic without BCL´s.

P1 **Sympathetic ophthalmia: case report**

Ana C. Abreu, Vânia Lages, Maria João Furtado, Mafalda Macedo

Purpose: To report a case of probable sympathetic ophthalmia
Methods: Observational case-report
Results: We report the case of a 45 years-old white male who presented to our department due to blurred vision in the left eye (LE) with one week evolution. He had no other ocular neither systemic symptoms. The patient reported a history of chemical burn in the right eye (RE) 12 years before that resulted in amaurosis and phthisis of this eye. Clinical examination revealed LE best corrected visual acuity (BCVA) of 0.5 and mild anterior granulomatous uveitis and anterior segment evaluation. Fundus examination showed an exuberant optic disc swelling with extension to nasal macular area associated with venous vascular sheathing and moderate vitritis. Systemic study was performed. Brain and orbital CT revealed RE phthisis, but were otherwise unremarkable. Treatment was initiated with topical and oral prednisolone. Thorax radiography, hemogram, inflammatory blood markers were normal; immunologic and infectious studies were negative. He performed macular and optic disc OCT, flurescein and green indocyanine angiographies which were compatible with clinical diagnosis of a probable Sympathetic Ophthalmia (SO). Immunosuppressive therapy with azathioprine was iniciated and oral/topical prednisolone was slowly tapered. Two months later, LE BCVA improved to 1.0 without active inflammation in the anterior segment. Fundoscopy shows a quiet vitreous, with remarkable improvement of optic disc swelling and vascular sheathing.
Conclusion: Sympathetic Ophthalmia is a rare bilateral granulomatous uveitis that occurs after either surgical or accidental trauma to one eye. In this case the SO presented 12 years after a chemical ocular trauma. Prompt treatment with corticosteroids and immunosuppressive therapy can control inflammation and provide good visual prognosis.

P2 **A case report: posterior scleritis in patient with lung neoplasia treated with biphosphonates**

Antonio Adán

Introduction: Posterior scleritis is a very low incidence disease with a difficult diagnosis.The etiology is usually idiopathic, but it is known that in patients over 55 years of age often have some associated pathology. Recent research show cases in which there was an association of posterior scleritis and biphosphonates treatment
Purpose: The aim of this study is to present the case of a patient with lung cancer and bone metastases, treatment on chemotherapy and bisphosphonates (zoledronate), who suffered a posterior scleritis, probably caused by treatment with biphosphonates.

Methods: We present the case of a 60 years old woman that showed up the emergency unit with red eye and pain. We observed conjunctival hyperemia, chemosis.BCVA 20/50.In funduscopy we observed exudative retinal detachment. Ocular ultrasound and orbital magnetic resonance were requested.The test reported a diffuse thickening of the choroid on the left eye with multiple choroidal detachment zones(360 grades)and meaninful increment of vascularity. The patient was treated with oral corticosteroids, topical anti-inflammatory and intravitreal Anti-VEGF.
Results: In this case the patient improved clinically. However, the exudative retinal detachment associated to a choroidal mass persisted. This led us to think about a choroidal metastasis located in inferior retina. We eventually made the decision of treating the patient with intravitreal bevacizumab injection. After one month with that treatment, the exudative retinal detachment disappeared and scar appearance of the choroidal mass was noted. BCVA 20/25
Conclusions: Biphosphonates are drugs used to decrease the action of osteoclast cells. The biphosphonates mechanism is unknown yet, but is thought that a cell T stimulation occurs, producing an autoimmune response leads to inflammation. In our case, we think the pathology of our patient may be due to the combination of the biphosphonates side effects and possible complications related to choroidal metastases.

P3 **Autologous limbal stem cell transplant together with autologous oral mucosal grafting providing successful and long-lasting barrier to corneal conjunctivalization**
Thorsteinn S. Arnljots, Eva Dafgård Kopp, Branka Samolov, Per Montan

Background: Recurrent CC due to limbal stem cell deficiency after ocular burns ocular may pose serious clinical challenges. Different methods have been utilized to restore corneal integrity including various techniques of limbal and oral mucosal tranpslantation. Up-to-date there are only a few studies presenting the long-term effects of OMT in preventing recurrent CC following restoration of corneal epithelial phenotype with limbal autografting.
Purpose: Case reports highlighting the importance of OMT in recurrent CC where LSCT only had been proven insufficient.
Methods: A retrospective review of 3 patients presenting with CC after severe ocular surface injury treated successfully with LSCT and OMT between 2004 to 2009.
Results: Case 1 is a 13-year old male who sustained severe firework injury with a 360° ischemic conjunctiva and a de-epithelialized cornea. Case 2 is a 7-year old female with firework trauma and deep injuries to the conjunctiva and the cornea nasally. Case 3 is a 43-year old male presenting with previously known severe chemical injury and circumferential corneal vascularization and symblepharon

despite repeated excisions in his home country. All patients were subjected to a LSCT with successful outgrowth of corneal epithelial phenotype but significant recurrent CC was noted in all patients threatening corneal clarity. After use of OMT placed next to the limbus in the areas of recurrence, a complete cessation of CC was noted with all patients showing clinically significant improvement and long-lasting stabilization of corneal integrity.
Conclusion: Oral mucosal transplantation in areas of scarred conjunctival tissue and symblepharon provides a valuable adjunct to limbal stem cell transplant in reconstructing the ocular surface after burns.

P4 **Phacoemulsification and Ahmed valve implant, in two times, in an Axenfeld-Rieger syndrome**

Elena Ávila, Amparo Gargallo, Marta Cerdá, Vicente T. Pérez-Torregrosa

Background: Axenfeld-Rieger syndrome (ARS) is a congenital anterior segment dysgenesia of the eye because of a failure of its appropriate development. It is characterized by systemic and ocular abnormalities with predisposition to cause glaucoma.
Purpose: We report a 45-year-old woman suffering from glaucoma due to an ARS non-responsive to maximum hypotensor treatment and bilateral trabeculectomy surgery. Visual acuity (VA) in right eye (RE) and left eye (LE) were 0.5 and 0.3, respectively. Intraocular pressure (IOP) was 17 in RE and 35 in LE. Slit lamp biomicroscopy, gonioscopy and anterior segment-OCT revealed syndromic characteristics, bilateral nuclear catarat and broad peripheral anterior synechia. The visual fields (VF) showed a moderate defect in LE with a superior scotoma. Optic nerve OCT (ON-OCT) confirmed an asymmetric papillary excavation of 0.7 in LE and retinal nerve fibers loss in both eyes.
Method/Results: According to the low VA and unsuccessful IOP control in the LE is considered to perform catarat surgery and Ahmed valve implant in two times. As a consequence of the miosis some difficulties were found during the phacoemulsification. Cortical masses were left in the anterior chamber which needed a surgical reintervention and, subsequently, a great inflamatory reaction was observed and solved with midriatics and corticotherapy. Two weeks later glaucoma surgery was done without any incidence. At present VA and IOP are correctly controlled.
Conclusion: Although trabeculectomy is the gold standard treatment for this patients, Ahmed valve is a better option for these refractories glaucomas with damaged conjunctivas. This sequential surgery protocol accomplished a VA and IOP stabilization and non-progressive damage in the ON-OCT and VF.

P5 **Acute retinal necrosis secondary to varicella zoster virus mimicking cytomegalovirus retinitis**

Laura Bernal, Luis Rodríguez, Gloria Cejas

Background: Acute retina necrosis (ARN) is a sight-threatening disease caused by herpes viruses such as herpes simplex virus type 1 and 2 or varicella zoster virus (VZV).
Purpose: To report an atypical ARN due to VZV virologic testing confirmed in a immunosupressed patient mimicking a cytomegalovirus retinitis.
Methods: A retrospective analysis of the clinical history, retinography and optical coherence tomography of a patient with ARN was conducted.
Results: A man aged 62 years, presented to the ophthalmologist complaining of right eye redness and blurred vision of several months. His past medical history was significant for an AIDS since 1997 t that did not follow any treatment and a thoracic Zoster.
Opthalmologic examination of the right eye revealed visual acuity of fingers counting, intraocular pressure of 10 mmHg, escleral injection and a significant inflammatory reaction in the anterior chamber. Funduscopy showed vitreous haze, optic nerve edema, arteriolar sheating and macular areas of whitening and hemorrague.
The patient was treated with intravenous ganciclovir . Varicella zoster virus (VZV) infection with a viral load of 5.8 x 107 IU was later confirmed with PCR of the aqueous fluid. Blood test revealed a CD4 lymphocytes counter of 3. The vision did not improved in the right eye but after four months- follow up the fellow eye remained unaffected.
This is an atypical debut because of extension to posterior pole with hemorraghe which may orientate to CMV as causal agent. A progressive outer retinal necrosis does not have vitritis neither arteritis and only the outer retina may be involved. This case meets the criteria for «a virus-confirmed ARN» according to the new diagnostic criteria of ARN.
Conclusions: Untreated ARN is an ophthalmic emergency. The diagnosis of ARN should be made not only on the basis of clinical appearance but also on the PCR test what leads to identify ARN in earlier stages of the disease.

P6 **Intralesional corticosteroids for adult eyelid and orbital xanthogranuloma**

Asma Bouabana, Leila Knani, Hechmi Mahjoub, Fafani Ben Hadj Hamida

Introduction: The adult orbital xanthogranulomatous disorders are rare. It can be classified into 4 subtypes: adult-onset xanthogranuloma, necrobiotic xanthogranuloma (NXG), Erdheim–Chester disease (ECD), and adult-onset asthma and periocular xanthogranuloma (AAPOX).

Purpose: To describe the clinical findings in a patient who was diagnosed with AAPOX and treated successfully by intralesionel corticosteroids.
Case Report: A 40-year-old woman presented with bilateral swollen eyelids that had gradually worsened over 5 years. She was diagnosed with asthma 5 years previously treated by inhaled bronchodilator. Initial examination revealed bilateral yellow-orange, elevated, indurated,
and nonulcerated xanthomatous plaque at the upper eyelids. Best corrected visual acuiy was 20/20 in both eyes and slit lamp examination was unremarkable. Physical examination revealed madibular mass lesion diagnosed by cervical ultrasonography as salivary gland enlargement and mandibular lymphadenopathy. The laboratory data showed high level of IgG monoclonal. Periocular biopsy samples showed xanthoma cells (mononucleated foamy histiocytes) and Touton giant cells. The patient received intralesional triamcinolone acetonide with a local control. No complications were noted.
Conclusions: Adult orbital xanthogranulomatous disease comprises a heterogeneous group of rare orbital and ocular adnexal disorders.They have common histological characteristics, such as the presence of foamy histiocytes (xanthoma cells) and Touton giant cells. Recognition of these lesions are important owing to the occasionally clinically severe systemic associations. AAPOX is also associated with unique systemic disorders, including adult-onset asthma, systemic lymphadenopathy, salivary gland enlargement and elevated serum levels of IgG. Treatment options vary with no current consensus as to the most optimum therapeutic course. Intralesional corticosteroids have been successful in controlling the signs and symptoms of adult.

P7 Diplopia after coronary artery catheterization and percutaneous transluminal coronary angioplasty

Joana Braga, João Costa, Joaquim Silva Pinheiro, Dália Meira

Background: Internuclear ophthalmoparesis (INO) is a clinical syndrome resulting from a lesion in the medial longitudinal fasciculus (MFL) in the dorsomedial brainstem. Is it an abnormality of the horizontal gaze, that manifests with defective adduction ipsilateral to the lesion and ataxic nystagmus in the contralateral eye on abduction. The lesion may be bilateral or unilateral. The causes include: demyelination in young adults, ischemia in elder patients, as well as tumors and trauma.
Case report: To report a case of an 83 years-old woman, with multiple cardiovascular risk factors, presenting with unilateral INO, manifested as horizontal diplopia, the day after performing coronary artery catheterization and percutaneous transluminal coronary angioplasty. The clinical profile of this case is described based on the patient's clinical history, complementary diagnostic exams and photographs as well as a follow-up evaluation.

Conclusions: The MFL is irrigated by small perforating arteries originated from the basilar artery. Because of this end-artery circulation, it is particularly vulnerable to ischemia and microemboli. Isolated INO is an uncommon complication of cardiac endovascular procedures, which may not be revealed by neuroimaging studies, and has an excellent prognosis with resolution of diplopia.

P8 **Silent time bomb behind the eyes – Carotid cavernous sinus fistula and its atypical progression after serous retinal detachment (case report)**

Fredy M. Brinez, Jan Tesař, Zuzana Hradcová, Michael Hrevuš

Background: Carotid-Cavernous sinus Fistula (CCF) is an acquired abnormal communication between the internal or external carotid arteries and the cavernous sinus. Symptoms include exophthalmus, venous congestion, chemosis, diplopia, headache, temporal bruit and impaired ocular movements. Rarely retinal artery/vein occlusion or serous retinal detachment (SRD) can develop. Late diagnosis and treatment of this pathology can threaten vision in one or rarely both eyes and it can be potentialy lethal due to subdural hemorrhage.
Case presentation: 83-year-old polymorbid woman had pars plana vitrectomy (PPV) for bilateral older serous retinal detachment (SRD). Due to bad visual prognosis only the left was operated. During the surgery a thick subretinal fluid was found peripapillary and remained weeks after surgery with spontaneous resorption. Her post-op BCVA was 20/30. Three months later she presented with mild exophthalmus, venous congestion and eye movement impairment on the unoperated right eye, subsequently the same symptoms developed on left eye. She also complained of temporal bruit.
According to the results of computed tomography angiography (CTA) which confirmed CCF an immediate neurosurgical intervention was recommended with the use of intra-arterial embolization coil due to the high risk of an imminent intracerebral bleeding.
Conclusion: In this case report we demonstrate that serous retinal detachment was present 3 months prior to other occular and neurological symptoms. Only few cases of SRD as first sign of CCF were reported so far. By using proper imaging methods and modern neurosurgical procedures we can offer a chance of survival and recovery of vision for patients.

P9 **Orbital Plasmocytoma: case report and review of the literature**

Anna Camós-Carreras, Alba R. Serrano-Peluffo, Andrea González-Ventosa, Santiago Ortiz-Pérez

Introduction: Multiple Myeloma (MM) is an haematological malignancy caused by plasma cells proliferation. MM affects mainly the bone marrow and kidneys, but

may also impair other organs including the eyes and periocular structures. Orbital involvement is rare and considered a factor of bad prognosis. We present a case of advanced MM with an orbital Soft Tissue Plasmocytoma.
Purpose: To report a case of an orbital Plasmocytoma describing its main features and implications in patients with MM.
Methods: Case report and literature review.
Results: A 72 year-old-woman with a complex medical history including a MM presented to the eye clinic complaining of a right painful and red eye. She was diagnosed with MM 2 years before and achieved remission of the disease after chemotherapy treatment. Unfortunately the disease recurred a few months later presenting multiple plasmocytomas and was not possible to control despite repeated chemotherapy and radiotherapy treatments. On examination, visual acuity was 20/200 in the right eye (RE) and 20/20 in the LE. Intraocular pressure was 38 and 14 mmHg in the RE and LE respectively. A red-wine mass was seen on the nasal aspect of the RE conjunctiva at the level of the medial rectus insertion accompanied by haemorrhagic chemosis. The RE also showed severe motility impairment and periocular bruise and swelling. CT-scan of the orbits showed a massive increase in size of the right medial rectus with no other orbital lesions. Presumptive diagnosis of orbital myeloma was done. The patient underwent local radiotherapy and palliative chemotherapy. Two weeks later the patient experienced great improvement in her symptoms and the external signs.
Conclusions: Orbital Plasmocytoma is a rare disease that may present as an orbital mass, or less frequent infiltrating the extra ocular muscles. In patients with past or current history of any kind of malignancy, the onset of an orbital disease must always raise the possibility of metastasis.

P10 Hemodynamic and morphological effects of resveratrol in retinal ischemia/reperfusion injury in rats

Anton Chudin, Tatiana Kiseleva

Purpose: This study was performed to investigate whether resveratrol has effects on ocular blood flow and morphological changes of ocular tissues in retinal ischemia/reperfusion (RIR) injury.
Methods: RIR injury was induced by subconjunctival administration of endothelin-1. 40 male Wistar rats were randomized into 3 groups: control group (1st group), rats with RIR were given normal saline (2nd group), rats with RIR supplemented with resveratrol per os within 2 months (3rd group). We estimated qualitative and quantitative characteristics of ocular blood flow by Power Doppler (PD) and spectral Doppler analysis using Ultrasound system VOLUSON E8 (GE Healthcare) and high-frequency probe SP 10-16 MHz with the high resolution zoom function. The peak systolic velocity (PSV, cm/s), end-diastolic velocity (EDV, cm/s), resistance index

(RI) of blood flow in the orbital vessels were measured on 3, 7, 30 days after RIR. Parallel to that the morphological studies of ocular tissues were performed.
Results: The signs of ischemic damage of the anterior and posterior segments of the eye were reduced in rats supplemented with resveratrol. The RIR-induced apoptosis of retinal cells in the inner and outer layers of the rat's retina were registered. Less intraocular hemorrhages and retinal areas with normal structures were visualized in rats of 3rd group. There was a statistically significant increase of PSV and the increase of EDV and the decrease of RI in orbital arteries of rats supplemented with resveratrol compared to those in the control group.
Conclusions: The improvement of ocular blood flow and retinal areas with normal structures were visualized in rats with RIR that were supplemented with resveratrol for a long period (2 months).

P11 Long term results in deep anterior lamellar keratoplasty performed with «big bubble» technique

João Coelho, Luisa Malheiro, Miguel Gomes, Luis Oliveira

Introduction: Deep anterior lamellar keratoplasty (DALK) is currently the gold standard approach for anterior corneal pathology in eyes with a healthy endothelium. DALK performed with «big bubble» technique was first introduced by Anwar aims to remove and replace affected corneal stroma while preserving host healthy endothelium, eliminates the possibility of endothelial rejection and graft failure and has minimal effect on endothelial cell density. DALK also allows removal of corneal sutures earlier than penetrating keratoplasty (PK) leading to a faster visual rehabilitation.
Purpose: To evaluate long term endothelial cell density (ECD) changes and visual and refractive outcomes after DALK using the big-bubble technique and to compare it with data from the literature regarding PK.
Methods: From May 2008 until March 2013, sixty two eyes of 62 patients with anterior lamella pathology not affecting the endothelium underwent DALK with the Anwar's big-bubble technique. Minimum follow-up is 3 years for all cases. ECD were obtained preoperatively and postoperatively. Other outcome measures were postoperative best spectacle-corrected visual acuity (BSCVA) and topographic astigmatism.
Results: Mean follow-up was 52 months. Mean BSCVA preoperative was 0,07 (range from counting fingers to 0,3) and improved to 0,59 (range from 0,2 to 1,0) at the end of follow-up, (P<0,001). At 12 months postoperatively, topographic astigmatism was 4,13 ± 3,8 D and remains stable during the follow-up. Baseline mean ECD was 2460 cells/mm², mean ECD loss was 5.66% at 1 year (P>0,05) and 9,95% at the end of follow-up, (P>0,05).
Conclusions: ECD loss is significantly lower in DALK (comparing to PK) and do not vary significantly on long term. There is no clinical difference in the outcomes of BSCVA and topographic astigmatism between DALK and PK. Although technically

more demanding, DALK should be preferred over PK in eyes that preoperatively have normal endothelial cell counts.

P12 **My own experience in retina surgery as trainee. Results and advices**
Pedro Fernández-Avellaneda, M.ª Paz Mendivil, Olaia Guergué, Estibaliz Ispizua

Introduction: When I started doing retina surgery I wanted some advice from other trainees, so I want to introduce the results and some clues about scleral and vitrectomy surgery, according to my 20 cases experience.
Purpose: To show that retinal surgery requires an early formation with an experienced surgeon working hand to hand.
Methods: We compare scleral surgery (group 1, 10 cases) with vitrectomy (group 2, 10 cases). In both groups we present the age, lens status, preoperatory visual acuity (pre VA), tecnique, postoperatory visual acuity (post VA) at the sixth month and complications.
Results: In the group 1, the average age was 56. The 20% of cases were macula on, 90% phakic, the average pre VA was 0.2. All cases were treated with cryoteraphy. In the 50% of cases we add a radial buckle and in the other 50% an encircling buckle. In 70% of the cases, we added 0,4 ml of SF6. The average post VA was 0.5. There were 2 cases with residual subretinal fluid, 1 needed additional laser and 1 redetachment.
In the group 2, the average age was 66. 70% of the cases were macula on. 60% pseudophakic. The average pre VA was 0,3. 90% of cases were treated with encircling scleral buckle and 23g vitrectomy, and the other 10% of cases with only vitrectomy. All of the cases were completed with endolaser and SF6. The average post VA was 0.6. There was a 10% of subcapsular cataract, 10% of macular hole, 10% of redetachment and 10% of diplopia.
Conclusions: Comparing group 1 and 2, there is no significant differences between the pos. VA in the scleral surgery group and the vitrectomy group. It meanly depends on the pre VA, age and macular status. It is very important, even more than surgery, a good control in the postoperative.
Concluding, I suggest to those people who really want, to start with the retinal surgery as soon as possible. because it requires a good bases on fluidic, diagnosis and surgical techniques, and for all of this, a lot of time and practice.

P13 **The efficacy of hyperbaric oxygen therapy in the treatment of central retinal artery occlusion – case report**
Carla Ferreira, Andreia Soares, Maria Antónia Costa, Tiago Fernandes

Introduction: The central retinal artery occlusion (CRAO) is an ophthalmological emergency.It is characterized by a sudden loss of vision. Embolism is the most

common cause of CRAO, the major source of this being carotid artery disease. The traditional therapeutics including ocular massage, anterior chamber paracentesis and intraocular pressure lowering medications have been unsuccessful. Hyperbaric oxygen therapy (HBOT) has been associated with visual improvement in retrospective studies.
Purpose: To report the efficacy of HBOT in two cases of CRAO.
Methods: We report two patients with sudden loss of vision due to CRAO. They underwent ophthalmic examination (Best corrected visual acuity(BCVA), intraocular pressure, biomicroscopy and fundus examination). The SD-OCT and fluorescein angiography(FA) were performed. The ophthalmic examination and the other exams were repeated in the next consultations.
Results: Case 1 – A 61-years-old female, presented to the hospital with sudden loss of vision of her left eye. The BCVA was count fingers(CF). She had relative afferent pupillary defect(RAPD). The biomicroscopy was normal and fundus examination showed an area of retinal whitening and redness in foveal area. The clinical diagnosis was done and she was submitted to the first session of HBOT after 6h. Her VA improved to 10/10 after three days of HBOT. The first FA was done after the first session and there was a few delay in the arm-to-retina time, that normalized in the second FA.
Case 2 – A 69-year-old male presented to the hospital with sudden loss of vision of his left eye. His BCVA was CF. The biomicroscopy and fundus examination were normal. He had RAPD. The FA demonstrated a delay in arm-to-retina time and the diagnosis was done. HBOT was performed after 4hours. His VA improved to 8/10 after 13 days of HBOT. The arm-to-retina time was normalized in the second FA.
Conclusion: HBOT was useful in the improvement of VA of these patients with CRAO.

P14 Unilateral choroidal neovascularization secondary to punctate inner choroidopathy in a emmetrope male

Ricardo Figueiredo, João Carvalho, Augusto Candeias

Introduction: Punctate inner choroidopathy (PIC) is an uncommon ocular inflammatory disease characterized by small yellow-white chorioretinal lesions, which usually affects young myopic women. Visual prognosis is usually good, but choroidal neovascularization (CNV) and subretinal fibrosis can lead to poorer visual outcomes.
Purpose: To report a case of a 45-year-old emmetrope male diagnosed with unilateral CNV secondary to PIC.
Methods: This is a retrospective and descriptive case report based on data collected from patient observation, clinical records and ancillary diagnostic tests.
Results: A 45-year-old emmetrope Caucasian male was referred to our Department of Ophthalmology with complaints of blurred vision in both eyes and myodesopsia

in his right eye (OD) for the past month. His best corrected visual acuity was 10/10 in the OD and 6/10 in the left eye (OS). Examination of the anterior segment of both eyes was normal. Fundoscopy evidenced multiple, small, yellow round lesions over the foveal and juxta-foveal region in the OD and over the inferior posterior pole in the OS, as well as a subfoveal choroidal neovascular membrane (CNVM) in the latter eye. No intraocular inflammation signs were present. Fluorescein angiography revealed early hyperfluorescent lesions which stained during the late phase in both eyes, with an extended focal area with crescent hyperfluorescence and leakage in the OS. Optical coherence tomography (OCT) demonstrated focal elevation of the EPR layer in the OD and a classic CNVM in the OS. The patient underwent treatment with oral prednisolone, an intravitreal triamcinolone injection and three intravitreal bevacizumab injections in the OS, which resulted in visual and imaging improvement.
Conclusions: We present an unusual case of unilateral CNV secondary to PIC in a emmetrope male, treated successfully with a combined therapy of oral corticosteroids, intravitreal corticosteroids and anti-vascular endothelial growth factor (VEGF) injections.

P15 Intravitreal bevacizumab for idiopathic peripapillary neovascularization in a child

Faten Gatfaoui, Leila Knani, Ahmed Mahjoub, Fafani Ben Hadj Hamida

Introduction: Peripapillary choroidal neovascularization (CNV) is an uncommon disease that threatens visual function in young patients. It may be due to optic nerve head drusen, idiopathic intracranial hypertension or be idiopathic. Treatment of peripapillary CNV is difficult.
Purpose: To report a case of idiopathic peripapillary CNV in a ten year-old girl treated successfully with intravitreal bevacizumab.
Case report: A 10 year-old girl presented with a painless worsening vision of the left eye over the past week. She was otherwise healthy with no history of trauma. On examination, the right eye was unreFmarkable. The best corrected visual acuity (BCVA) of the left eye was 1/10. Slit lamp examination of the anterior segment and the vitreous was unremarkable. undoscopy was notable for active peripapillary temporal CNV membrane without predisposing fundus findings. Fluorescein angiography and optical coherence tomography (OCT) neovascularisation. Neurological examination was unremarkable. Optic head drusen were ruled out by autoflorescence and ocular sonography. The patient received a single intravitreal bevacizumab injection (1.25 mg/0.05 ml) which led to complete regression of the CNV with complete resorption of subretinal fluid. Visual acuity improved to 10/10 in the left eye. We noted no recurrence over 1 year of follow-up.

Conclusions: Peripapillary neovascularisation are rare in children. The main causes are inflammatory diseases, optic nerve head drusen, idiopathic intracranial hypertension and idiopathic neovascularisation. Intravitreal antiangiogenic therapy for choroidal neovascularization in pediatric patients seems safe and effective. An underlying disease of peripapillary CNV should be diagnosed and treated.

P16 **Butterfly-shaped macular dystrophy in Steinert disease: a case report**
Elena Guzmán, Viviana P. Lezcano, Cristina Molero, M.ª Isabel López

Background/Introduction: Steinert disease (SD), an autosomal dominant disorder, is the most common type of muscular dystrophy. The most frequently associated ophthalmologic findings are posterior subcapsular cataracts and ptosis. SD patients tend to remain visually asymptomatic until the fourth or fifth decade of life.
Purpose: To report retinal findings in a case of SD.
Methods: A 45-year-old male with SD was referred to our department for ophthalmoscopic examination. Visual acuity was 0.6 in the right eye (RE) and 0.7 in the left (LE). Physical examination showed myogenic ptosis in both eyes (BE). Ocular motility and intraocular pressure were normal. Anterior pole examination revealed posterior subcapsular cataracts in BE. Yellow pigment deposition was seen above the retinal pigment epithelium (RPE) within the macular area on the ophthalmoscopic examination.
Results: Fluorescein angiography (FA) revealed butterfly-shaped macular dystrophy in the RE. Optic coherence tomography (OCT) showed no fluid.
A 6 year follow-up of the patient including with visual acuity assessment, slit-lamp biomicroscopy and fundus examination has discovered no significant changes to visual acuity to date.
Conclusions: Vision loss in SD patients is mostly attributable to ptosis and cataracts, though maculopathy can also be the cause. FA patterns may differ among affected family members and even between the RE and the LE in the same patient. Routine examination including ophthalmoscopy and OCT are recommended for follow-up care.

P17 **Descemet's membrane detachment at the main incision in cataract surgery analysed by AS-OCT: comparison of manual 2.75 mm incision, manual 2.2 mm incision and 2.3 femtosecond laser-assisted incision**
Iker Henares-Fernández, Nerea Sáenz-Madrazo

Purpose: To study the incidence of Descemet membrane detachment at the main incision in cataract surgery using the AS-OCT: analysing the different types of incision

(size: 2.2 vs 2.75 mm; manual vs femtosecond laser-assisted) as well as the relation with the incision location.
Setting: Ophthalmology Department of Basurto Universitary Hospital (Bilbao, Spain) from June until December 2015.
Methods: A comparative prospective study was done with 72 consecutive patients who underwent cataract surgery employing phacoemulsification. The type of incision (manual 2.75mm, manual 2.2 mm or 2.3mm femtosecond laser assisted) was a surgeon's choice. The first postoperative day an AS-OCT was taken in all patients, centered at the main incision. The image obtained was classified as: No detachment, planar Descemet detachment (when the separation between Descemet membrane and stroma was less than 1 mm) and non-planar Descemet detachment (If the distance was bigger)
Results: 72 patients underwent cataract surgery, 33 male and 39 female, 27 right eyes and 45 left eyes. 6 different surgeons participated. In 24 cases a manual 2.75 mm incision was performed, in 20 patients a manual 2.2 incision and in 18 a 2.3 mm femtosecond laser-assisted.
No patient presented a non-planar Descemet detachment. 17 patients (23.61%) presented a Plain detachment (<1mm) showed by AS-OCT without any clinical nor visual impact in late postoperative.
There were no association among the three types of incisions and the Descemet membrane detachment (X2 (2) =0.53, p> 0.05). We also demonstrated that there was no association between corneal incision location and Descemet membrane detachment X2(2) = 5.37, p> 0.05.
Conclusions: The sort of incision : manual 2.75mm, manual 2.2 mm or 2.3mm femtosecond laser assisted, was not related to a higher probability of Descemet membrane detachment during cataract surgery. In the same way, incision location was not in relation with a higher risk of DMD.

P18 Radiation retinopathy after Leksell Gamma Knife therapy of choroidal tumor

Zuzana Hradcová, Fredy M. Brinez, Jan Tesař, Michael Hrevuš

Background: Leksell gamma knife is a stereotactic, minimaly invasive treatment and is a useful option for malignant choroidal tumors. However, there are various side effects. Early side effects and long term side effects. Long term irreversible side effects include microvascular changes with endothelial cell loss, capillary occlusion and microaneurysm formation which can lead to severe ischemic proliferative retinopathy with tractional retinal detachment, neovascular glaucoma and very often ends with eye enucleation.
Aim: To show the development of radiation retinopathy and it´s treatment on clinical case.

Methods: Patient diagnosed with small uveal melanoma underwent a LGK therapy. After 12 months we revealed first signs of radiation retinopathy confirmed by fluorescein angiography (FAG). We started with laser photocoagulation (LP) of retina and after 29 months optic disc neovascularization (NV) appeared. Pacient got Bevacizumab injection followed by reduction of NV.
Results: On FAG and ultrasound we observed tumor regression and stabilisation of radiation retinopathy after panretinal LP and one injection of Bevacizumab. Visual acuity is counting fingers with normal intraocular pressure after 33 months.
Conclusion: We have to focus on regular opthalmological examination and search for radiation retinopathy which develops even if the dosage and focus of gamma radiation is precisely counted. Well planned treatment of side effects, if possible, can prevent severe complications of radiosurgery.

P19 One year outcome in patients with wet aged-related macular degeneration non-responsive to ranibizumab switched to aflibercept
Michael Hrevus

Background: Wet age related macular degeneration is characterized by the growth of neovascular complex from choroid underneath the macula. It is a leading cause of severe vision deterioration in older patients in developed countries. Anti-VEGF agents such as ranibizumab and aflibercept become the standard in treating wet form of ARMD as they block the angiogenesis. However some patients do not show any visual or anatomical improvement after treatment. These we call non-responders. As the molecules of different anti-VEGF drugs play different role in blocking angiogenesis, non-responder for one molecule can respond to the other.
Aim: To study the outcomes of patients non-responsive to ranibizumab switched to aflibercept.
Methods: Retrospective study of 15 eyes of 15 patients with wet form of ARMD non responsive to ranibizumab switched to aflibercept between the years 2014 and 2016. Mean number of injections of aflibercept in one year follow-up after treatment switch was 5,27. Best corrected visual acuity in ETDRS score and OCT central retinal thickness was assessed at the time of switch, at 6 months and at one year interval. Non responder in our group was a patient whose central retinal thickness (CRT) did not decrease and visual acuity did not improve after at least three monthly given intravitreal injections of ranibizumab.
Results: After switching the treatment mean CRT decreased from 403 um to 282 um at six months and 316 um at one year, ETDRS visual acuity remained stable, at the beginning 55,7 letters, at 6 month 53 letters and at one year 55,9 letters.
Conclusion: Switching therapy from ranibizumab to aflibercept can be useful in patients who do not respond adequately to the therapy. In our group visual acuity was

stabilized and CNV complex activity was reduced. We document this on two case reports.

P20 Central and peripheral corneal endothelium morphometry wearing contact lenses

Justina Ignatavičiūtė, Dovilė Pranytė, Atėnė Kašinskaitė

Background: There is controversy in literature whether gradient of endothelial cell density in corneal periphery exist.
Purpose: To compare endothelial cell parameters in central and six peripheral areas of cornea in contact lens wearers and subjects not wearing contact lenses and to determine whether there are some areas in corneal periphery where endothelial cell density are significantly different than other areas.
Methods: Endothelial cell density (ECD), percentage of six-sided cell (HEX) and coefficient of variation of cell area (CV) were measured using non contact specular microscopy in the center of the cornea and six peripheral areas of 37 soft contact lens (SCL), 35 rigid gas permeable (RGP) and polymethylmethacrylate (PMMA) contact lens wearers and in 67 controls who had never worn contact lenses.
Results: There was no statistically significant difference of ECD in center or peripheral areas between the groups. CV was significantly higher in center and peripheral areas in RGP and PMMA group than control and SCL wearers. HEX was significantly lower in central and peripheral areas in RGP and PMMA group than control and SCL wearers. In RGP and PMMA contact lens wearers group ECD in superior, superotemporal, and inferotemporal areas was significantly lower compared to other groups , but no difference between areas was observed in each group separately.
Conclusions: Comparing endothelial cell parameters difference was observed in group of RGP and PMMA contact lens wearers only. No gradient of endothelial sell density in corneal periphery was observed.

P21 Angio-OCT for multiple pigment epithelial detachments in C3 glomerulopathies

Valeria Kheir, A. Dirani, M. Haflon, G. Halabi, Y. Guex-Crosier

Background/Introduction: C3 glomerulopathies represent a spectrum of glomerular diseases characterised, on fluorescent microscopy, by presence of complement C3 and absence of immunoglobulin deposition in, above or underneath glomerular basement membrane. It is due to defective alternative pathway control. It is associated most of the time with drusen-like deposits in Bruch's membrane as well as choriocapillaris. These retinal lesions can be associated with choroidal neovascularisation and CRSC, predisposing to a risk of loss of vision.

Purpose: To describe an angio-OCT of drusenoid DEPs in a woman affected by C3 glomerulopathy.
Methods: A 28 years old woman affected by C3 glomerulpathy was found to harbour asymptomatic multiple bilateral DEPs during a routine ophthalmologic control. Fluorescence and indocyanine angiography didn't identify any underlying cause of these lesions. Optical coherence angiography (OCTA) of the DEPs was performed and described in our patient.
Results: The optical coherence angiography (OCTA) can clearly identify vascular network rarefaction with less blood vessels in the choriocapillaries layer. It confirms that PEDs associated with C3 glomerulonephritis are not vascularised but rather they are of serous type.
Conclusions: Patients affected by C3 glomerulopathy can develop neovascular membranes as retinal complications of PEDs, so Angio OCT appears to be an indicated exam to identify this kind of complication without injecting any contrast product that would further damage their kidney.

P22 Pott's puffy tumour: report of a rare and serious case of eyelid swelling

Soyang Ella Kim, Olivia Li, Ian Subak-Sharpe

A 47-year-old man with HIV presented to the eye unit with a 7-week history of progressive left upper eyelid swelling associated with forehead swelling and sinusitis. He was initially diagnosed with unilateral blepharitis and discharged with maxitrol ointment, but returned when the swelling returned.
Examination revealed a boggy swelling over the forehead with surgical emphysema. CT showed frontal sinus abscess and osteomyelitis, with bony erosion through the anterior and posterior frontal sinus walls into the subcutaneous tissues and the intracranial space. He was managed with triple intravenous antibiotic therapy and had Functional Endoscopic Sinus Surgery to drain the abscess and to clear infective debris with a good outcome.
Frontal sinusitis is common in adolescents and immunocompromised patients, often presenting with headache, periorbital and frontal sinus tenderness, nasal discharge, fever, and general malaise. Progression to Pott's Puffy Tumour is rare with the advent of modern antibiotic therapy, however it is a serious condition not to be missed.
It is important to keep wider differential diagnoses for immunocompromised patients, and to think beyond the eye when assessing causes of eyelid oedema. It further reiterates the importance of careful assessment despite growing pressures of a busy eye casualty department, and the careful consideration that should take place before diagnosing unilateral blepharitis.

P23 **Presentation of patients with submacular haemorrhages that occurred after a party treated with intravitreal injections of recombinant tissue plasminogen activator (rt-PA) and sulfur hexafluoride (SF6)**

Joanna Kozioł-Moszczyńska, Joanna Miniewicz, Agnieszka Kubicka-Trząska, Bożena Romanowska-Dixon

Introduction: Submacular haemorrhages in young people, occurring after a party can cause severe visual impairment and its pathogenesis is still not completely understood. Observation and waiting for spontaneous blood absorption is insufficient to achieve improvement of visual acuity.
The aim of this study is to present the results of treatment of sub-retinal haemorrhages in macular region with intravitreal injections: recombinant tissue plasminogen activator (rt-PA) and sulfur hexafluoride (SF6).
Material and methods: The analysis of 6 patients (3 females and 3 males) aged 17-30 years with submacular haemorrhages. In all cases, bleeding occured after a party in a night club. In the 6 months follow-up the patient history, the changes in best corrected visual acuity (BVCA) and the behaviour of the central retina thickness(CRT) were evaluated. Intravitreal injections of rt-PA and 100%SF6 were performed.
Results: In all patients visual acuity improved and the central retinal thickness in OCT examination was reduced. There were no complications.
Conclusions: Our observation indicated that intravitreal injections of rt-PA and 100% SF6 may be an effective alternative treatment of submacular haemorrhages, since spontaneous blood absorption may lead to scar formation and persistent loss of visual acuity.

P24 **The diagnostics of solar retinopathy based on the results of optical coherence tomography**

Ewa Kurzak, Sebastian Sirek, Erita Filipek, Ewa Mrukwa-Kominek

Background: Solar retinopathy is a light-induced damage to the retina, in particular macula, due to direct sunlight exposure. This photochemical damage primarily affects cells of retinal pigment epithelium and outer segments of photoreceptors. Typical symptoms include a decrease in visual acuity, blurred vision, scotoma within the central and paracentral field of vision, metamorphopsis, chromatopsia, photophobia and headache.
Purpose: The aim of this study was to evaluate the clinical outcomes of patients exposed to direct sunlight during the observation of the solar eclipse on March 20th, 2015.
Methods: A retrospective analysis of the medical records of six children exposed to direct sunlight. Basic method for imaging the retinal damage was optical coherence tomography.

Results: The study group consisted of six children (4 girls and 2 boys) aged from 10 to 18 years (mean age 14.5 ± 3 years, 12 eyes). Optical coherence tomography scans have shown the presence of variously sized, hyporeflective, limited area in the fovea, covering retinal pigment epithelium and outer segments of photoreceptors. Additionally, hyperreflective foci within all layers of the retina were observed. The outline of the fovea remained retained. Reversion to full visual acuity was observed in all individuals.
Conclusions: The study group was characterized by typical symptoms and course of solar retinopathy. The optical coherence tomography of macula proved to be an accurate imaging tool for the solar retinopathy, providing the insights into the dynamics of changes within layered structure of retina.

P25 **Acute syphilitic posterior placoid chorioretinitis: case report**
Vânia Lages, Ana C. Abreu, Mafalfa Macedo

Introduction: Acute posterior placoid chorioretinitis, initially described by Gass in 1968, is an inflammatory and self-limited, rare clinical entity. It may be idiopathic or it may be associated with several systemic conditions, particularly cerebral vasculitis.
Purpose: To describe a case of acute posterior placoid chorioretinitis due to secondary syphilis.
Methods: Case report.
Results: A previously healthy 42 year-old male presented to the emergency department with progressive asthenia, weight loss and ataxia for a few months. He reported loss of vision in his right eye for 4 days. The physical examination showed a maculopapular rash suggestive of secondary syphilis. The serologies were positive for HIV, HBV and HCV. The best corrected visual acuity was hand movements in the right eye (RE) and 20/70 in the left eye (LE). The RE biomicroscopy revealed a mild anterior chamber reaction, with granulomatous keratic precipitates. The RE fundoscopy demonstrated vitritis, blurred optic disc margins and a macular plaque-like lesion at the level of the retinal pigment epithelium/choriocapillaris. He performed an angiography which was compatible with the suspected diagnose of acute posterior placoid chorioretinitis. He was admitted to the hospital and treated with intravenous benzathine penicillin and oral corticoterapy with progressive clinical improvement.
Conclusions: Acute posterior placoid chorioretinitis is a rare presentation of ocular syphilis. The diagnosis is clinical with characteristic findings on angiography. This presentation should motivate a complete clinical examination and syphilis serologies. HIV serologies should also be performed because the immunologic state of the patient affects the clinical presentation of this entity.

P26 **Osteoma choroid treated with Avastin**

Noemí I. Marca, Alfredo Fernández, Hugrún Hallsteinsdóttir, Antonio Adán

Introduction: The choroid osteoma is observed in 90% of cases in women, average age of 21 years, 75% of the cases are unilateral. The majority of the patients are asymptomatic. The typical location is yuxtapapilar or peripapitar extension to the region with macular. They can present choroidal neovascularization manifesting as oozing, bleeding or fluid subretiniano close to the tumor. The treatment of choroid osteoma is no cure. However its main complication, choroidal neovascularization, can respond photocoagulation, Photodynamic therapy, and anti-angiogenic drugs in a manner similar to age-related disease.
Case report: We present the clinical case of a patient of 24 years of age coming by decrease of Visual acuity of left eye.
AV: OD 1 0I: OI. BMC: Transparent media in both eyes.
PIO 14/14. FO: Normal OD.
OI: 02 E NM.
FO: OI: Choroidal Lesion amelanotica with margins scalloped in the region approximately 10 DP macular.
OCT: Destructuring macular with abundant liquid subretiniano.
AFG: Phase venous lamilar notes the irregular hierflorescencia in the region of the choroid osteoma and the hiperfluorescencia in lace.
Ultrasound mode B: High reflectance in the choroid indicative of deposit of calcium.
TAC: ORBITS: Displayed a calcification redondada of approximately 5 mm in diameter in rear pard's left eyeball immediately lateral to the optic nerve.
Conduct: to Avastin IV 3 doses with improvement of AV OI 04.
OCT: Control with decrease of liquid subrretiniano.
Conclusion: We present a clinical case rare choroid Osteoma, before a non-pigmented choroidal mass must be decartar early metastasis and choroid Amelanotic melanoma as diagnosis differential. The main cause of presentation the decrease in alertness visual but they can pursue asymptomatically depending on their location. He is associated with systemic diseases such as hypercalcemia (hiperparatioidismo, bone destruction, vitamin D-related disturbances, renal failure, alkalosis metabolic hypocalce).
In our case not.

P27 **A case of bilateral central serous chorioretinopathy secondary to Cobimetinib treatment**

Mireya Martínez, Ana Honrubia, Alicia Idoate, José I. Sánchez

Introduction: Cobimetinib is a potent and highly selective inhibitor of MEK1 and MEK2, central components of the RAS/RAF pathway. This pathway is activated in

a wide variety of human tumors. On November 2015, the European Commission approved COTELLIC (Cobimetinib) for use in combination with vemurafenib for the treatment of adult patients with unresectable or metastatic melanoma with a BRAF V600 mutation.
Purpose: To associate the use of Cobimetinib with the CSC in a 48-year-old male patient who came to the ER with a two-day visual alteration. The patient was diagnosed with metastatic melanoma and had begun the treatment with 60 mg of Cobimetinib 2 days before the symptoms appeared. The patient presented a blurred spot in the center of vision in both eyes, although the visual acuity was 20/20. The slip-lamp exam was normal for the anterior segment, but we found a dome-shaped subretinal macular elevation on both eyes' funduscopy.
Methods and Results: The Optical Coherence Tomography (OCT) images show this macular edema with the pigmentary epithelium detachment in both eyes. Treatment was suspended and within 5 days the macula morphology was normal. He started with a lower dose of Cobimetinib, 40 mg once daily. A month later he is not presenting any retinal alteration.
Conclusions: Although this disease is considered idiopathic, it is really important to perform a thorough anamnesis and we should look for the etiology when it is a bilateral case like this. In these cases of CSC secondary to Cobimetinib, it is really necessary to adjust the dose of the drug because the CSC usually disappears. Leaving this therapy is not an option for many patients with unresecabe or metastatic melanoma. The OCT could play an important role in the dose adjustment to avoid CSC in these patients. This is the first time that a patient shows a bilateral serous retinopathy secondary to Cobimetinib treatment for metastatic melanoma.

P28 Succesful antifungal empirical treatment of a keratitis on the LASIK flap

Javier Martínez-Martín, Elena Sevillano-Fernández, Laura Strobl-Bardo

Background: Fungal keratitis is an often misdiagnosed disease in countries with a developed health service such as Spain, but under some conditions must be strongly considered as a posible origin. Treatment is not properly standardized.
Purpose: This report has as a goal, the exposition of a fungal keratitis case, along with his predisposing factors, and our clinical management of it, with a two-different routes empirical antifungal treatment, including repeated intrastromal amphotericin B injections.
Although LASIK surgery is not a commonly predisposing factor, this case should focus on the underlying causes of a fungal keratitis, among which, a corneal surface alteration is widely considered.
Methods and results: We present a case of a 46 year-old male who developed -after a probable precipitating vegetal trauma- a severely disabling stromal keratitis

enclosed under the corneal flap of a LASIK surgery, conducted 20 years before. Despite the initial treatment, with ceftazidime, moxifloxacin and dexamethasone, clinical worsening advanced. Only after an empirical antifungal approach, with both topical and intrastromal amphotericin B, the infection and the surrounded inflammatory reaction started to ceased.
Conclusions: Starting an empirical antifungal treatment could be in this cases the best way to avoid a potentially permament visually disfunction, due to the strong inflammatory reaction this pathogenic agent could cause; but the decision is not standardized yet. Intrastromal injection may be used as an adjunctive treatment of the topical management, furthermore, a combination of different routes has shown an increased effectiveness. Our experience, showed in this case report, has been successful.

P29 Bilateral diabetic papillopathy: a diagnostic challenge
Ana F. Miranda, Sonia Parreira, Sandra Barros, Paula Telles

Diabetic papillopathy is an edema of the optic disc of no demonstrable cause other than diabetes. It can be unilateral or bilateral and is accompanied by vascular leakage and axonal swelling in and around the optic disc, and sometimes also intraretinal hemorrhage and hard exudate. The degree of diabetic retinopathy in patients with diabetic papillopathy tends to be mild, and it is believed that diabetic papillopathy is a separate entity rather than an extension of diabetic retinopathy. There is no validated therapy and the pathogenesis largely is unknown, but studies suggest that it may follow rapidly improved metabolic control. Smaller optic disks may be represent a risk factor.
The authors report a case of a 17-year-old woman, diagnosed with type 1 diabetes and recent improved metabolic control. Patient presented with acute and painless reduced visual acuity (VA) in her left eye (LE). She was examined in our department 6 months before for diabetic retinopathy screening which was negative. On ophthalmological examination VA in her right eye (RE) was 20/20 and in LE 20/100, intraocular pressure (IOP) respectively of 27 and 25 mmHg on her RE and LE, no changes on anterior segment examination and on fundoscopy a bilateral optic disk edema, with peripapillary cotton-wool spots and hemorrhages, was evident, and normal peripheral retina observation. Fluorescein angiography revealed dye leakage from both the optic disks and macular optical coherence tomography (OCT) showed LE macular edema. Magnetic resonance imaging of the brain and orbit, lumbar puncture opening pressure, cerebrospinal fluid análisis and blood test results were all normal. Patient was treated with acetazolamide 250mg/day and after two weeks of treatment VA was 20/20 on both eyes, optic disk edema improved slightly on fundoscopy and macular OCT was normal bilaterally.
This case report shows a case of bilateral diabetic papillopathy with macular edema in a patient with no signs of diabetic retinopathy.

P30 **Multimodal imaging analysis of the «Onion Sign» of age related macular degeneration**

Laura Monje, Rosa Dolz, Roberto Gallego, Felipe M. Costales

Background: It is a novel sign that you can see by optical coherence tomography. Recently, it has been described that it represents cholesterol crystals.
Purpose: To analyze the characteristics of the onion sign present in age-related macular degeneration.
Methods: Retrospective observational study about onion sign in patients suffering age-related macular degeneration. Examination included: color fundus photographs, fundus autofluorescence, spectral-domain optical coherence tomography (SD- OCT) and MultiColor imaging.
Results: Nineteen eyes were included. Color fundus photographs showed a yellowish crystalline appearance. The onion sign appeared variable in the autofluorescence images, however the MultiColor imaging showed a bright yellowish appearance. The SD-OCT evidenced a variable amount of hyperreflective bands underneath the retinal pigment epithelium. These lesions remained stable through the follow up, or increased over time.
Conclusions: We synthesize the main characteristics of the onion sign. Altogether with the typical reported appearance of the onion sign on the OCT scans, Multicolor® images may be of great value in the detection and monitoring of this particular sign in patients with both atrophic and neovascular AMD.

P31 **Orbital cavernous hemangioma: surgical excision or conservative attitude**

M.ª Noelia Moraña, Alberto Parafita, Francisco J. Cores

Introduction: Orbital cavernous hemangioma is a benign, noninvasive, slowly, progressive vascular tumor. Depending on the clinic the most suitable approach will be decided: observation or surgery.
Purpose: To highlight the importance of conservative attitude in initial cases or with relative contraindication for surgery.
Methods: A 77-year-old woman had been aware of decreased visual acuity in the right eye for several months with unremarkable history. Best corrected visual acuity was hand movement in the right eye (OD) and 20/20 on the left eye (OS) with right severe afferent pupillary defect. Anterior pole is was normal. Partial papillary pallor in OD and normal OS were found in posterior pole. In visual field test showed almost completely abolished visual field with small visual remnant in OD and normal OS, with altered visually evoked potentials in OD. In MRI, an intraconal lesion in the right orbit, compatible with cavernous hemangioma was found, displacing right optic nerve.

Results: Patient was referred for surgery, discarding intervention for the poor functional prognosis given the degree of optic neuropathy. During follow up, a progressive visual improvement (best-corrected visual acuity 20/25 in OD) with remarkable recovery in visual field happened. Patient remains stable to date without changes on MRI (14 years).
Conclusions: Although the existence of optic neuropathy in a patient with cavernous hemangioma is an indication for excision, there are publications that have found no progression on MRI in cases of mild optic neuropathy. Also, cases which were of high risk or with any surgical contraindication that had required expectant attitude, showed no progression.
In our case, it´s natural history would be an argument in favour conservative attitude in the cases mentioned above. Also is the first reported case in the literature of spontaneous improvement in a patient with severe optic neuropathy secondary to orbital cavernous hemangioma.

P32 Necrotizing abscess by Serratia Ureilytica: emergency penetrating keratoplasty

Javier Obis, Antonio Mateo, María Satue, Miriam Idoipe

Introduction: Keratoconus is a progressive corneal pathology whose management depends on the stage of the disease. Intracorneal ring segments try to correct refractive errors by achieving central flattening of the surface. One of their possible complications is infection, which is estimated at 1.9%.
Purpose: We are presenting the case of a 43-year-old man who consulted for intense pain in his left eye (LE) during the previous two days. LE visual acuity (VA) was hand movements. He had had intracorneal ring segments implanted in his LE for keratoconus 7 months before. Corneal scraping was obtained for culture and antibiogram. Despite maximum broad-spectrum topical and oral antibiotic treatment, the following day biomicroscopy revealed spread of the infiltrate and severe corneal necrosis with imminent risk of perforation. Consequently, the patient was operated on that day in order to remove the ring segments and irrigate the corneal tunnels with fortified antibiotics.
Methods: An emergency penetrating keratoplasty was performed. A 9mm corneal graft was required due to the size of the excised tissue. As it was a high risk keratoplasty, high dose immunosuppressants were prescribed in order to avoid primary rejection, including topical and oral tacrolimus.
Results: Afterwards, the culture revealed the presence of Serratia ureilytica (an extremely unusual cause of bacterial keratitis), which was sensitive to gentamicin. The following medical reviews proved a favourable evolution, and the treatment was gradually tapered with no signs of rejection and no signs of reactivation of the infection. 9 months after the keratoplasty, LE VA was 0.9.

Conclusions: In massive bacterial keratitis with imminent risk of perforation, emergency penetrating keratoplasty in association with an appropriate regimen of antibiotics and immunosuppressants can achieve good visual results.

P33 Efficacy of the intravitreal fluocinolone acetonide implant in patients with chronic diabetic macular oedema previously treated with anti-VEGF – the James Paget University Hospitals experience
Tejal Patel, Craig Goldsmith, Muhammad Raja

Introduction: ILUVIEN® (0.2 µg/day FAc implant) is indicated for the treatment of vision impairment associated with chronic DMO, considered insufficiently responsive to available therapies. The current case outlines the real-world experience with the 0.2 µg/day FAc implant.
Purpose: To evaluate outcomes up to 12 months post-0.2 µg/day FAc implant in patients insufficiently responsive to prior anti-VEGF therapy.
Methods: 12/12 patients had type-II diabetes and a pseudophakic lens. 6/12 patients had previous vitrectomy. 12/12 patients received an average of 4.1 injections (range, 1 to 6 injections) prior to receiving the 0.2 µg/day FAc implant. Efficacy was assessed in terms of visual acuity (VA) and central retinal thickness (CRT). Changes in intraocular pressure (IOP) were also monitored.
Results: Mean VA and CRT were improved. VA increased by 0.07 from a baseline value of 0.36 and CRT decreased by 249 µm from a baseline value of 542 µm. Similar VA and CRT responses were observed between vitrectomised and non-vitrectomised patients. 1/12 patients experienced a rise in IOP >21 mmHg and this was managed with effectively managed with IOP-lowering eye drops with IOP dropping to 12 mmHg within 1 day.
Conclusions: In real-world practice, patients insufficiently responsive to anti-VEGF therapy experienced improvements in VA and CRT following treatment with 0.2 µg/day FAc implant. Further follow-up is required to assess IOP changes.

P34 Otogenic sinus thrombosis presented with bilateral abducdens palsy
Sara Pinho, Olinda Faria, Augusto Magalhães, Jorge Breda

Introduction: Sinus thrombosis is a rare intracranial complication of otitis media. The authors report a case of a seven-years-old female with extended sinus thrombosis that presented with bilateral VI cranial nerve paralysis.
Methods: Retrospective and descriptive study case report based on data of clinical records, patient observation and analysis of ancillary diagnosis tests.
Results: A seven-years-old female was admitted for diplopia, blurring of vision and headache. The patient was under treatment for simple acute otitis with amoxicillin

plus clavulanic acid. The imaging study showed thrombosis of sigmoid and lateral sinus and the proximal segment of jugular vein. Vancomycin plus ceftriaxone was initiated as empiric therapy. Myringotomy with pressure equalizing tube was performed to drain the infection and to obtain pus for culture. The microbiological study was negative. Ophthalmologic evaluation showed a bilateral limitation of abduction consistent with bilateral abducens nerve paralysis. Visual Acuity was 0.8 on the right and left eyes. The fundoscopy examination showed an exuberant bilateral papilledema. The findings were documented by retinography. On visual field examination, an enlarged blind spot bilaterally was documented. Ophthalmologic evaluation was a crucial part of diagnosis, screening and management of patient's cranial hypertension and other possible intracranial complications.
Conclusion: Intracranial complications of acute otitis media can be difficult to recognize. Ophthalmologic findings may contribute to precoce recognition and management of such conditions.

P35 Pneumatic retinopexy as an alternative procedure by a young ophthalmologist

Marta Pradas, Trinidad Infante, Edgar J. Infantes, Fernando González del Valle

Introduction: Pneumatic retinopexy was described in 1985 by Alfredo Domínguez Collazo as an outpatient procedure to repair rhegmatogenous retinal detachments. Nowadays is an unpopular retinal surgery in comparison with scleral buckling and pars plana vitrectomy.
Purpose: To show this alternative procedure, to treat a retinal detachment, to young generations of ophthalmologists.
Methods: A 51 years old woman with a superior detachment with macula on and a difficult personal situation that makes the surgery impossible.
The patient was treated with pneumatic retinopexy using 0.71 cc of 100% SF6 and postoperative prone positioning. Two days later, laser barrage photocoagulation with 120 laser impacts was performed along the break. The patient was in prone positioning for 9 days until the gas has gone.
Results: On the third postoperative day, the break was photocoagulated. Fifteen days later, we detected a new break with little retinal detachment in the other eye and it was treated. The macula remained on through the entire procedure. The visual acuity improved from 0,3 at the beginning to 1 one month later. At 3 months, visual acuity was maintained and retina was completely attached. Findings were confirmed on optical coherence tomography and panfunduscopic examination by Staurenghi lens.
Conclusions: Pneumatic retinopexy associated to laser barrage could be a good option for treating a retinal detachment without major surgery. This outpatient technique could be an alternative to scleral buckling and/or pars plana vitrectomy

especially with problems of major surgery room availability (weekends, vacations) and should be taken in consideration if the macula remains on. Also it should be known by young ophthalmologists, its indications and surgical technique, to treat certain retinal detachments in absence of retinal specialists.

P36 Retinal ischemic syndrome and carotid stenosis

Jorge Sánchez, Marta Cuesta, Felipe M. Costales, Patricia Ibáñez

Background/Introduction: Ocular ischemic syndrome, also known as hypoperfusion/ hypotensive retinopathy or as ischemic oculopathy is a rare ocular disease determined by chronic arterial hypoperfusion through central retinal artery, posterior and anterior ciliary arteries. It is bilateral in 20% of the cases. Most often it appears due to severe occlusion of the carotid arteries
Purpose: To report two cases of retinal ischemic syndrome that leads to the diagnosis of carotid stenosis
Methods: Two case report of retinal ischemic syndrome eventually diagnosed of unilateral proliferative and mild diabetic retinopathy by fundus examination and fluorescein angiography.
First case we present is a 63 years old man known with diabetes type 2 non-insulin dependent who doesn´t present any visual impairment. A routine ophthalmologic evaluation shows mid-peripheral dot and blot hemorrhages in the right eye with proliferative diabetic retinopathy, afterwards treated with pan-retinal photocoagulation.
Second case was a 73 years old man known with primary arterial hypertension, hypercholesterolemia, and diabetes type 2. In a postoperative review after cataract surgery shows mid-peripheral dot and blot hemorrhages in four quadrants only in the left eye.
Both cases Carotid duplex scanning was performed in suspected of retinal ischemic syndrome.
Results: Carotid duplex scanning detected a complete ipsilateral carotid stenosis in the first case and was treated medically.
In the second case Carotid Duplex scanning detected a severe ipsilateral carotid stenosis and Nuclear Magnetic Resonance was performed previous carotid endarterectomy.
Conclusions: Marked asymmetry in diabetic retinopathy must ask us a syndrome of retinal ischemia by ipsilateral carotid stenosis, finding the properly vascular and ophthalmological treatment.

P37 Perfluorocarbon liquids toxicity

Mariel Sánchez, Miguel A. Serrano, Andrés Blasco, Denisse Ángel

Purpose: Our purpose is to inform the European scientific community of 33 cases of retinal toxicity and profound visual impairment (reduced to large object and light

perception) after intraoperative use of Ala Octa PFCL between July and December 2014.
Methods: During the last 6 months of 2014, 63 patients underwent surgery involving the use of PFCL at the University Hospital of the Canary Islands. The PFCL used was Ala Octa (Alamedics). Surgery was required for retinal detachment (59 cases) and intraocular lens refloating (4 cases). During surgery, performed by six surgeons, no signs of retinal toxicity were observed and no peri-surgical abnormality was detected. Between day one and one month after surgery, 33 of these patients experienced negative and unexpected developments, and all had received intraoperative Ala Octa PFCL (lots 150414 and 200114). The first cases were immediately reported to the competent authority, the Spanish Agency for Medicines and Health Products (AEMPS). The competent authority banned the use of Ala Octa PFCL in Spain as a precautionary measure.
Results: In our patients we distinguished three forms of presentation. The first, the most aggressive, presented with retinal necrosis and retinal re-detachment. The second presented with retinal pallor, intraretinal hemorrhage simulating a vascular picture evolving to retinal fibrosis and optic atrophy. The third presented with slight retinal involvement and optic atrophy. Visual acuity in all these patients was reduced to large object or light perception. Of the two lots used (150414 y 200114), that which produced the greatest toxic effect was lot 150414.
Conclusions: In the last semester of 2014, 33 patients undergoing surgery at our hospital for retinal detachment or intraocular lens dislocation showed very unfavorable outcomes. The common factor was the use of Ala Octa PFCL. Following the withdrawal of this product in our hospital we have not detected any similar case. Faced with this tragic situation, we believe that European legislation should be revised so that traceability requirements are met at all times, while strict criteria are required in product manufacture as well as maximum controls to prevent new cases of substance toxicity in all ophthalmic surgical products.

P38 Role of SD-OCT in the follow-up of a patient with macular edema associated with Hunter syndrome undergoing idursulfase enzyme replacement therapy

José I. Sánchez, Francisco J. Ascaso, Mireya Martínez, Miguel A. Torralba

Introduction: Mucopolysaccharidosis (MPS) type II (Hunter syndrome) is a variable, progressive, multisystem disorder including severe airway obstruction, cardiomyopathy, skeletal deformities and neurological problems. It is an X-linked recessive disease caused by deficiency of the lysosomal enzyme iduronate-2-sulphatase, leading to accumulation of glycosaminoglycans. Several ophthalmological disorders, including corneal opacities, glaucoma and retinal degeneration, have been previously reported.

Purpose: This is the first case of bilateral macular edema associated with MPS II. The patient underwent idursulfase enzyme replacement therapy with good response. We point out the utility of spectral domain optical coherence tomography (SD-OCT) in the diagnosis and follow-up of this condition.
Methods: SD-OCT, fundus autofluorescence and retinography were used in the diagnosis and follow-up of the visual disorder.
Results: Macular edema was successfully managed with idursulfase enzyme replacement therapy stabilizing visual loss. Central macular thickness measured by SD-OCT decreased significantly.
Conclusion: Idursulfase enzyme replacement therapy seems to be a good treatment option for macular edema associated with MPS II. Furthermore, SD-OCT played a key role in the diagnosis and follow-up of this condition.

P39 The importance of autofluorescence Imaging in retinal angioid streak diagnosis

Aguas S. Sánchez, Antonio M. Garrido, Ana Alcántara, Eduardo Esteban

Introduction: Retinal angioid streaks are reddish, brown or orange lines which represent Bruch's membranes openings. These streaks can pass through the macular region without loss of visual acuity. Their appaearence can be confused with retinal bood vessels. In 90% of cases, retinal angioid streaks are asociated with Pseudoxanthoma elasticum cases.
Purpose: To describe 3 cases-report of demonstration of retinal angioid streaks with fundus autofluorescence imaging in patiens with Pseudoxanthoma elasticum.
Methods: A 50-year old insulin dependent diabetic male with a bad metabolic control is refered to our Medical Retina Unit with a suspicion of optic nerve head vascularization. His visual acuity is 18/20 in both eyes. Biomicroscopie, retinography and optical coherence tomography (OCT) demonstrate a mild-moderate non-proliferative diabetic retinopathy without any evidence of macular swelling.
A 40-year old woman and a 49-year old man are refered to our Departament of Ophthalmology to dismiss any ocular lesions after being diagnosed of Pseudoxanthoma elasticum by a dermatologist.
Results: For all 3 cases, fundus autofluorescence imaging reveal peripapillary retinal angioid streaks in both eyes. In the first case, physical examination demonstrate excessive, leathery skin folds in the neck region. Therefore, a systemic study of the patient is requested in order to dismiss extraocular lesions. In the first case autofluorescence imaging was essential for Pseudoxanthoma elasticum; in the other two cases it was very helpful for monitoring.
Conclusions:
– Fundus autofluorescence imaging can demonstrate retinal angioid streaks which are not distinguishable in the habitual clinical examination, avoiding risks of others complementary invasive tests such as fluorescein angiography.

– It is important to carry out an integral ophthamological examination without losing sight of the possible relationship between ocular findings and systematic pathological processes.

P40 **Two cases of Duane syndrome with different presentation and management: a family report**

Idaira M. Sánchez, Aida Hajjar, Patricia Pontón, Renzo R. Portilla

Introduction: Duane retraction syndrome (DRS) is a congenital rare type of strabismus caused by aberrant innervations. Markus Gunn Jaw-winking syndrome consists of a blepharoptosis phenomenon associated with a winking motion of the affected upper eyelid during the contraction of the pterygoid muscle.
Purpose: To describe the clinical findings and therapeutic management in a case of two siblings – both carriers of aberrant innervations with one brother having a bilateral type I DRS and the other Type IV DRS associated with Marcus Gunn syndrome.
Methods: A family series. A 13-year-old with Type I bilateral DRS characterized by bilateral limited abduction and globe retraction with narrowing of the palpebral fissure in adduction. His VA was 1.0 in both eyes. He was ortophoric in primary gaze with no abnormal head posture and therefore did not require any treatment.A 10-year-old with a Marcus Gunn syndrome associated with Type IV DRS. His clinical findings included blepharoptosis in the right eye, limited elevation associated with globe retraction and narrowing of the palpebral fissure in elevation and adduction.
Results: The younger sibling underwent two surgeries to correct both ptosis and jaw-winking phenomenon. At first a recession of the inferior rectus muscle was performed. Then he underwent a resection of the upper eyelid levator muscle. At present, he has symmetrical upper eyelids and he is able to control the synkinesis with chewing and protrusion movements.
Conclusions: Ocular retraction syndromes can be caused by developmental abnormalities during embryogenesis and may have systemic associations. A new classification includes DRS, Mobius Syndrome, congenital fibrosis of the extraocular muscles and Marcus Gunn Synkinesis as part of congenital cranial dysinnervation disorders. Expanding group of related disorders are known to arise from abnormal development of individual or multiple cranial nerve nuclei or abnormalities in cranial nerve axonal transport.

P41 **Treatment of recurrent macular hole with plasma rich in growth factors**

Ronald M. Sánchez-Ávila, Jesús Merayo-Lloves

Introduction: Recurrent macular holes are an ophthalmologic problem still unresolved, even using PPV (pars plana vitrectomy) plus peeling ILM (internal

limiting membrane) associated with ILM inverted flap. PRGF (Plasma Rich in Growth Factors) is a blood derivative with regenerative, anti-inflammatory and bacteriostatic properties; it has application in ocular surface diseases. The authors describe a technique of vitreoretinal surgery using membrane-PRGF (Plasma Rich in Growth Factors), for closure of the recurrent macular hole (MH).
Methods: A case of a 71-year-old man with cataract surgery in the right eye (RE) and diffractive lens implant, which develops after 15 days postoperative a MH, associated metamorphopsias and decreased visual acuity (VA). One month after PPV was performed with ILM peeling, achieving closure of MH; however the patient three months after consultation worse visual acuity (count finger) and metamorphopsias. Recurrence of MH is documented (700 micrometers) associated with subretinal fluid, intraretinal hemorrhages and pigment dispersion. It was decided to repeat enlarged PPV with ILM peeling extended to near the optic nerve and membrane-PRGF placement over the MH at the end of surgery, then gas is placed in the vitreous cavity.
Results: At 2 months follow-up is completely closed the MH, anatomic recovery of the foveal depression (assessed by optical coherence tomography), intraretinal hemorrhages and subretinal fluid disappear, the gas disappears, improves VA to 0.1 and intraocular pressure (IOP) in RE are maintained at 15mmHg. No adverse reactions associated with the PRGF, and we did not have recurrences of macular hole (4 months follow-up).
Conclusions: The use of membrane-PRGF can increase anatomic and visual results in the surgical repair (PPV) of recurrent macular holes. The PRGF can be an adjuvant therapy for retinal surgery.

P42 Uncommon ophthalmic manifestations of multiple sclerosis. Case reports

Inesa Skvarciany, Aiste Augyte

Multiple sclerosis (MS) is an inflammatory demyelinating and neurodegenerative disorder of central nervous system (CNS). Reflecting the disseminated nature of the disease, MS plaques may affect any part of the afferent and efferent visual pathways. The purpose of this presentation is to report uncommon ophthalmic MS manifestations. We retrospectively analized medical records of two patients who presented to Vilnius University hospital.
Case 1: 20 y. woman presented to emergency room due to painful right eye movements, worsening visual acuity, impaired colour vision. BCVA RE 0.8, LE 0.9. Slit-lamp examination: keratic precipitates, flare, cells in the anterior chamber, vitreous haze, snowbanks in the midvitreous, on the pars plana inferiorly and retinal periphery of both eyes, slightly hyperemic optic nerve disc of the right eye, fibrovascular tissue bands spread from retina to vitreous. FH: patient's mother has

MS. Cranial MRI revealed multifocal demyelinating plaques in the periventricular/ subcortical area. After prednisolone administration uveitis symptoms decreased and patient felt vision improvement.
Case 2: 19 y. female presented with central visual field defect, worsened visual acuity of both eyes, especially reading. BCVA RE 1,0, LE 0,5; BCVA near distance RE 0.4, LE 0.2. Color vision was impaired, RAPD (+) in the LE. Fundoscopy – without pathology. Bitemporal central hemianopsia was found in perimetry. Cranial MRI revealed optic chiasm enlargement and enhancement, multifocal demyelinating plaques (inactive) in the periventricular area. The patient received methylprednisolone pulse therapy followed by oral prednisolone 60mg (tapering). Two months later BCVA RE 1,0, LE 1,0, color vision restored, visual field – without any defects.
Conclusions: Neuro-ophthalmic manifestations are common in MS, a thorough knowledge of the afferent and efferent visual pathway manifestations of MS may guide selection of appropriate investigation aimed at detecting disease.

P43 Ocular syphilis outbreak in Vilnius region

Simona Stech, Dovile Norvydaite

Introduction: Syphilis is a sexually transmitted multi-systemic infection, caused by Treponema pallidum. The prevalence of syphilis in Lithuania decreased from 55,6 per 100,000 population in 1998 to 8,6 in 2005, and since then during the 10 years period relatively stabilization in syphilis rate is observed (from 7.6 to 11.1 cases per 100.000 population) [1]. The rate of ocular syphilis increased in 2009-2015 in Vilnius region while in 2003–2008 no case was observed.
Purpose: To report clinical manifestations of ocular syphilis during ten years period in the east part of Lithuania.
Methods: A retrospective review of ocular syphilis cases between 2006 and 2015. All patients went through ophthalmologic examinations, optical coherence tomography and fluorescein angiography. Diagnosis included non-treponemal, followed treponemal specific serologic tests. Syphilis diagnosis at the time was confirmed by positive CIA, TPHA and RPR for all patients.
Results: 9 patients (13 eyes) were included, with HIV-negative serology. Posterior uveitis was the most common finding (5/9patients, 8/13eyes). Panuveitis manifested as granulomatous anterior uveitis, neuroretinitis and vitritis. Posterior uveitis manifested as chorioretinits with or without vitritis, optic neuritis, neuroretinitis. Neurosyphilis was diagnosed in 3 patients. Six patients were treated with intravenal benzypenicilin: 6 – 24 mln U/d for 14 days (in one case for 28 days), one – with oral Ceftriaxon 2 g/d for 11 days following by Doxycyclin 200 mg for 1 month and one – with intramuscular benzypenicilin 2,4 mln U every week for 3 weeks. One patient refused any treatment.

Conclusions: Syphilitic uveitis was bilateral in 44,4 % cases. Posterior uveitis was the most common. Despite comparatively stabile epidemiologic situation in the country an increasing trend in the number ocular syphilis during the last seven years was observed.
References: 1. Data from infectious diseases and AIDS centre of Lithuania, 2014.

P44 Acremonium keratitis: four case series
Ernesta Strelkauskaite, Rimvydas Asoklis

Purpose: To report the predisposing risk factors, clinical presentation, management, and therapeutic outcomes of fungal keratitis caused by Acremonium.
Methods: This is a retrospective study of cases with Acremonium fungal keratitis that presented to our tertiary referral center between september 2013 and January 2016. Patient demographic and clinical details were determined and reported.
Results: Four cases of fungal keratitis from Acremonium species were identified in four patients (two males, two females). The mean age of the patients was of 45.75 years (range 23-72). All patients had a history of contact lens (CL) wear, prolonged antibiotics and steroid use, one patient kad trauma with beetle. Four cases were unresponsive to initial treatment (0.15% amphotericin B) and three of four needed treatment with 1% voriconasole. All patient underwent penetrating keratoplasty. One patient eventualy underwent enucleation.
Conclusion: The most common risk factors for Acremonium fungal keratitis CL wear, prolonged antibiotics and steroid use. When a corneal lesion is found to be unresponsive to the initial treatment, penetrating keratoplasty should be considered.

P45 Long-term outcomes of intrastromal corneal ring segments implantation in patients with keratoconus
Jan Tesar, Jaroslav Madunicky

Background: Keratoconus is a degenerative ectatic disorder in which cornea becomes progressively thin and more conic. Patient are usually younger, active, and they suffer from blurred distance and near vision caused by irregular myopic astigmatism and increased HOA (high order aberrations), especially coma. Implantation of ICRS (intracorneal ring segments) may improve patient's vision and stop ectasia from progression.
Aim: To study the results of ICRS implantations at our centre.
Methods: 432 eyes of 331 patients (66 females, 265 males, mean age 31.4 years) underwent implantations of ICRS between the years 2009 and 2015. Before and after the IRCS implantation the Uncorrected Visual Acuity (UCVA), Kmax, pachymetry and degree of keratoconus were assessed using Pentacam.

Results: The mean UCVA improved with the surgery from 0, 22 to 0, 41. Kmax decreased from 58.5 D pre-op to 56.0 D post-op. There was no significant change in pachymetry (mean 461 um pre-op vs. 466 um post-op). The degree of keratoconus calculated by Pentacam decreased from 2.9 pre-op to 2.6 post-op. The studied parameters remained stable over the mean follow-up period of 5.3 years in 93% of eyes.
Conclusion: We have proved that ICRS implantation significantly improves patient's vision and prevents progression of ectasia. However, the right indication and precise ICRS calculation is a key element in achieving optimal results.