

ABSTRACTS

WELCOME MICRO COURSE REGARDING OCULAR SURFACE PROTECTION

- Is the ocular surface protected in topical treatment without preservatives? Pros and cons

Adriana Stănilă, Elena Mihai, Sibiu

Topical medication interacts with the ocular surface through allergic, toxic and immuno-inflammatory side effects. Preservatives can induce or aggravate eye surface pain by their toxic and pro-inflammatory effects, as well as by the action of detergents. The aim of the paper is to analyse the effect of topical treatment on the eye surface with and without preservatives, as well as the advantages and disadvantages of preservative-free single dose versus multidose preservative bottles. There are pros and cons for the use of preservatives in topical medication, related to the personal clinical experience of the authors.

TFOS DEWS II SESSION (TEARS FILM OCULAR SURFACE DRY EYE WORKSHOP II)

- Introduction to the TFOS DEWS II report

David A. Sullivan, Harvard, Boston, MA, USA

Purpose: To increase our understanding of dry eye disease (DED), the Tear Film & Ocular Surface Society (TFOS), a non-profit organization, launched the TFOS Dry Eye Workshop II (TFOS DEWS II) in March 2015. The objective of the TFOS DEWS II was to achieve a global consensus concerning multiple aspects of DED. More specifically, TFOS DEWS II sought to [a] update the definition and classification of DED; [b] evaluate critically the epidemiology, pathophysiology, mechanism, and impact of this

disorder; [c] develop recommendations for the diagnosis, management and therapy of this disease; and [d] recommend the design of clinical trials to assess future interventions for DED treatment. Methods: The TFOS DEWS II involved the efforts of 150 clinical and basic science research experts from around the world, who used an evidence-based approach and a process of open communication, dialogue and transparency to increase our understanding of DED. This process required more than 2 years to complete. Results & Conclusions: The ~ 400 page TFOS DEWS II report, as well as an Executive Summary, were published in the July and October 2017 issues, respectively, of *The Ocular Surface*. Downloadable versions of these documents and additional material, including videos of diagnostic and management techniques, are available for free on the TFOS website: www.TearFilm.org. It is anticipated that translations of the report will be offered in many languages, including Romanian. These translations, when finished, will be available on the TFOS website. (The TFOS DEWS II was supported by unrestricted donations from many companies to TFOS.)

- TFOS DEWS II: Overview of the Definition and Classification report

Jennifer Craig, New Zealand

Purpose: The Definition and Classification subcommittee of the Tear Film & Ocular Surface Society's Dry Eye Workshop II (TFOS DEWS II) sought to redefine and classify dry eye disease based on current scientific evidence, and in a consensus-based manner. Methods: Limitations of the existing dry eye definition were explored by surveying the TFOS DEWS II membership, and were considered within the context of the current scientific evidence, in crafting a contemporary dry eye definition and classification. Results: The updated definition recognizes the multifactorial nature of dry eye disease, with a loss of tear film homeostasis playing a central role in the disease process. Symptoms and signs are both key to dry eye, with tear film instability, hyperosmolarity, ocular surface inflammation and damage and

neurosensory abnormalities considered to be the main etiological drivers. A patient-centred, pathophysiology-based classification scheme was created. Patients who are diagnosed with dry eye on the basis of signs and symptoms, according to the TFOS DEWS II criteria, are directed towards management to reestablish tear film homeostasis. Other manifestations of ocular surface disease featuring signs without symptoms and symptoms without signs are also considered. Conclusions: The classification approach has been designed to help clinicians provide more realistic expectations to their patients with respect to management potential. It is intended to help guide clinical care and future research but not to supersede clinical judgment. (The TFOS DEWS II was widely supported by unrestricted industry donations to TFOS.).

- Overview of the Epidemiology, Pathophysiology and Iatrogenic Dry Eye Disease reports

David A. Sullivan, Harvard, Boston, MA, USA

Purpose: To briefly overview the Epidemiology, Pathophysiology and Iatrogenic Dry Eye Disease (DED) reports of the Tear Film & Ocular Surface Society's Dry Eye Workshop (TFOS DEWS II). Results & Conclusions: The core mechanism of DED is evaporation-induced tear hyperosmolarity, which is the hallmark of DED. It damages the ocular surface both directly and by initiating inflammation, which can lead to a self-perpetuating, vicious cycle of DED. Two forms of DED are recognized, aqueous-deficient and evaporative (EDE). The major cause of EDE is meibomian gland dysfunction (MGD). Consistent risk factors for DED include age, sex, race, MGD, connective tissue disease, Sjögren syndrome, androgen deficiency, computer use, contact lens wear, estrogen replacement therapy, hematopoietic stem cell transplantation, certain environmental conditions (such as pollution, low humidity, and sick building syndrome) and medication use (for example, antihistamines, antidepressants, anxiolytics, and isotretinoin). Iatrogenic DED is also very common and can

be induced by a number of clinical interventions, including many topical and systemic drugs, and ophthalmic surgical (e.g. lid, refractive, cataract, glaucoma, vitreoretinal) and non-surgical (e.g. botulinum toxin application, cosmetic) procedures. (The TFOS DEWS II was supported by unrestricted donations from many companies to TFOS.)

- Diagnostic Methodology

James Wolffsohn, London, UK

Purpose: The role of the Tear Film and Ocular Surface Society (TFOS) Dry Eye Workshop (DEWS) II Diagnostic Methodology Subcommittee was 1) to identify tests used to diagnose and monitor dry eye disease (DED), 2) to identify those most appropriate to fulfil the definition of DED and its sub-classifications, 3) to propose the most appropriate order and technique to conduct these tests in a clinical setting, and 4) to provide a differential diagnosis for DED and distinguish conditions where DED is a comorbidity. Method: The academic literature was reviewed on tests claiming diagnostic ability for DED and a consensus was reached on the most appropriate test battery for clinical diagnosis. Results: Prior to diagnosis, it is important to exclude conditions that can mimic DED with the aid of triaging questions. Symptom screening with the DEQ-5 or OSDI confirms that a patient might have DED and triggers the conduct of diagnostic tests of (ideally non-invasive) breakup time, osmolarity and ocular surface staining with fluorescein and lissamine green (observing the cornea, conjunctiva and eyelid margin). Meibomian gland dysfunction, lipid thickness/dynamics and tear volume assessment and their severity allow subclassification of DED (predominantly evaporative or aqueous deficient) which informs the management of DED. Videos of these diagnostic and sub-classification techniques are available on the TFOS website. Conclusion: It is envisaged that the identification of the key tests to diagnose and monitor DED and its subclassifications will inform future epidemiological studies and management clinical trials, improving comparability, and enabling

identification of the sub-classification of DED in which different management strategies are most efficacious.

- Overview of the Management and Therapy report

Jennifer Craig, New Zealand

Purpose: The Management and Therapy Subcommittee of the Tear Film & Ocular Surface Society's Dry Eye Workshop II (TFOS DEWS II) sought to deliver an evidence-based review of the current therapies and management options for dry eye disease. Methods: A review of the peer-reviewed literature, with a focus on the last 10 years publications was undertaken, and a report compiled. Evidence levels ranging from Level 1 for the highest quality studies demonstrating good conduct, design, randomization, control and analysis, through to Level 3 for descriptive studies, case reports, and expert opinion, were noted. Results: Treatments for aqueous tear insufficiency and evaporative dry eye due to meibomian gland dysfunction, as well as anti-inflammatory medications, surgical approaches, modification of diet, consideration of environmental exposures and complementary therapies are described. Many dry eye treatments were noted to lack the necessary Level 1 evidence to support their recommendation, often due to a inadequate masking, randomization or controls and in some cases due to issues with selection bias or insufficient sample size. On the basis of available information, a staged management algorithm was presented describing a step-wise approach to introducing the various management and therapeutic options according to disease subtype and severity. Conclusions: Additional evidence is necessary to validate the introduction, and continued use, of many current treatments available for dry eye disease management, and to inform appropriate treatment starting points and specificity in relation to disease subtype. (The TFOS DEWS II was widely supported by unrestricted industry donations to TFOS.)

MICRO COURSES, SYMPOSIA

- The role of contact lenses in protecting the ocular surface

Helmer Schweizer, Switzerland

When thinking about protection in general, quickly, the idea of a shield or a cover comes to mind, like an umbrella when it comes to protect against wetness. Contact lenses are often seen as a disturbance of the ocular surface, rather than a protection. Them being placed between the air and the cornea, does however, make them a potentially true protection tool. Up to 20 years ago, the performance of the contact lenses, especially with regards to the oxygen transmissibility was not good enough. The downsides of neovascularization outweighed the benefits of the pain relief etc. Healing of the corneal epithelium was not really helped a lot either. Soon after the introduction of the first silicone hydrogel (SiHy) lenses, the first report of their use as bandage and therapeutic lenses. Only a few years later, the ophthalmology societies around the world were aligned in recommending SiHy lenses as the first choice when it comes the use of protective contact lenses. Today, we may even look at expanding the indications for therapeutic usage of contact lenses, as their performance is no longer an obstacle. This presentation will review the above and today's as well as the future situation, including a hint to developments with so called intelligent or smart lenses.

- Ultraviolet rays and ocular protection

James Wolffsohn, London, UK

Background: Although there is good evidence to suggest that ultraviolet radiation (UV) exposure to the ocular surface is linked to tissue damage (such as pterygia, pinguecula and cataracts), a good way to communicate this and the differences between lens materials UV protection is lacking. However the sun protection factor (SPF) of sun creams is well

recognised by consumers and establishing a contact lens applicable SPF offers an opportunity to enhance communication on contact lens UV protection. A SPF of unity (1) represents no UV absorbance (thus blocking) at all, hence total transmittance of UV through the material under test. Therefore the aim of this research was to explore how SPF could be most appropriately applied to contact lenses. Methods: UV transmittance through commercial contact lenses (-3.00D) and spectacle materials was measured with a Deuterium light source and spectrophotometer. CL-SPF values were calculated using the standard in-vitro COLIPA method. The effect of lens power and position across contact lenses was measured. Ray tracing was applied to two spectacle lens designs to assess the effect of solar angle and head orientation relative to the source on light rays reaching the ocular surface around the spectacle lenses. Results: Current CLs separate into three categories: CL-SPF with no UV blocker = 1.0-2.0 (equivalent to using no sunscreen); CL-SPF with Class 2 UV blocker = 12.2-24.8 (equivalent to sunscreen CL-SPF15 taken as the level used by many adult in moderately sunny conditions); and CL-SPF with Class 1 UV blocker = 48.6 -66.2 (equivalent to sunscreen 50+ generally applied to children and people with fair skin). Ray tracing demonstrates that despite the UV blocking characteristics of spectacle lenses, their protection of the ocular surface can be substantially reduced at certain solar angle and head orientation combinations. Across all solar angles and head orientations, on average 76-89% of the light was prevented from reaching the ocular surface depending on the intensity of the tint (80-20% transmission). Conclusions: CL-SPF for contact lenses is a viable metric to communicate the protection from UV that some brands of contact lenses offer patients.

- Ocular surface protection in keratoconus

Catalina Corbu, Mihaela Constantin, București

Ocular surface is described as a functional unit consisting of tear film, bulbar and palpebral epithelium, sclerocorneal limb epithelium and

corneal epithelium. Palpebral malposition, trauma, inflammatory and allergic factors change the ocular surface integrity responsible for ocular refractive status, ocular metabolic process and maintaining of corneal biomechanical characteristics. Patients with keratoconus present higher instabilities of tear film and changes at each corneal level (epithelium thinness, breaks of Bowman membrane, decrease of number and architectural changes of stromal collagen fibers). Physiopathology of these changes involve simultaneous action of higher level of inflammatory factors (interleukins, metalloproteinase and other kind of proteins in lacrimal tears) and proteolytic enzymes and a lower level of inhibitors for these enzymes. Therefore, the more advanced the disease the lower values of corneal biomechanical parameters we record. In the paper it will be presented the methods for ocular surface protection at patients with keratoconus: medicaments (artificial tears, immunomodulators, anti-inflammatory and antiallergic drops), soft, rigid or scleral lens – with visual rehabilitation role and decrease of discomfort and dry eye symptomatology and para surgical methods (crosslinking). Also, there will be presented corneal biomechanical aspects and influence of different treatment above of these parameters.

- Alternatives and considerations on ocular surface topical treatments for glaucoma patients

Valeria Coviltir, Silvia Păvăloiu, Miruna Gabriela Burcel, București

There is a higher prevalence of both glaucoma and dry eye disease in elderly patients. These two clinical entities often influence each other. Many dry eye disease treatments increase the risk of appearance or exacerbation of glaucoma and have a negative impact on surgery, whereas chronic use of topical antiglaucomatous treatment can trigger or worsen dry eye symptoms. There is proof of the damaging effect that benzalkonium chloride has over corneal integrity, the conjunctiva, trabeculum, lens, macula and retina. Higher toxicity of topical treatments can also lead to lower tolerability and decreased patient compliance, thus compromising therapeutic success.

Therefore, the treatment for a patient with both glaucoma and dry eye must be considered as a whole. Concerning the administration of topical medications in glaucoma patients, current alternatives for increasing corneal surface protection are: lowering exposure to preservatives, cessation of purposeless overmedication, early glaucoma surgery etc. The patient's quality of life can be improved by simplifying the drop instillation scheme, making treatment instructions easier, lowering treatment costs, and increasing independence from caregivers. Meanwhile, fewer drop instillations and shorter treatment periods have a lower negative impact over the ocular surface.

- Stem cells treatment – modern modality of ocular surface reconstruction

Cristina Nicula, Cluj-Napoca

The author will present the modern treatment with stem cells in the reconstruction of ocular surface. It will be taken into account on the types of harvesting of stem cells, surgical steps and modalities of evolution.

Key words: stem cells, graft, corneal surface

- Dry eye syndrome in children-underdiagnosed ?

Daniela Cioplean, București

The dry eye syndrome (DES) is often diagnosed in adults but it can be also present in children. Several causes can affect lacrimal secretion in children. The most often causes which induce dry eye in children are: meibomian dysfunction, blepharitis, herpes virus infection, medication. Constitutional causes as: lid coloboma or other lid anomalies, Moebius Syndrome, Goldenhar Syndrome, Riley-Day Syndrome or other neurological genetic syndromes can compromise the adequate ocular surface lubrication and hydration. Bone marrow transplant or other transplants can severely affect the lacrimal gland functionality while Stevens

–Johnson Syndrome, through its sechelae represents a threat for the ocular surface integrity. All these situations can be decently controlled if early diagnosed. Underdiagnosed, in certain situations the corneal integrity can be irreversible compromised.

- Myopia control attitudes and practice in Europe

James Wolffsohn, London, UK

Background: Myopia is a global public health issue; however, no information existed as to how potential myopia retardation strategies are being adopted across Europe and globally. Method: Therefore a self-administrated, internet-based questionnaire was distributed in six languages, through professional bodies to eye care practitioners globally. The questions examined: awareness of increasing myopia prevalence, perceived efficacy and adoption of available strategies, and reasons for not adopting specific strategies. Results: Of the 971 respondents, concern was higher (median 9/10) in Asia than in any other continent (7/10, $p < 0.001$) and they considered themselves more active in implementing myopia control strategies (8/10) than Australasia and Europe (7/10), with North (4/10) and South America (5/10) being least proactive ($p < 0.001$). Orthokeratology was perceived to be the most effective method of myopia control, followed by increased time outdoors and pharmaceutical approaches, with under-correction and single vision spectacles felt to be the least effective ($p < 0.05$). Although significant intra-regional differences existed, overall most practitioners 67.5 (± 37.8)% prescribed single vision spectacles or contact lenses as the primary mode of correction for myopic patients. The main justifications for their reluctance to prescribe alternatives to single vision refractive corrections were increased cost (35.6%), inadequate information (33.3%) and the unpredictability of outcomes (28.2%). Conclusion: Hence, regardless of practitioners' awareness of the efficacy of myopia control techniques, the vast majority still prescribe single vision interventions to young myopes. In view of the increasing prevalence of myopia and existing

evidence for interventions to slow myopia progression, clear guidelines for myopia management need to be established.

- The influence of ocular surgery upon the cornea

Dorin Nicula, Cluj-Napoca

The paper takes into account different iatrogenic factors (laser therapy, crosslinking, corneal graft, intracorneal rings) which can influence the physiology and biomechanical properties of the cornea. It is presented the etiopathogenetic aspects, prophylaxis and treatment.

Key words: ocular surgery, corneal surface

- Surgical treatment for deep corneal ulcers

Mihail Zemba, București

The etiologic and predisposing factors for corneal ulcers are presented. The treatment in corneal ulcers begins with medical treatment: antibiotics, anti-inflammatory, lubricants and also matrix regenerative drops. Sometimes may be necessary surgical treatment. There are different techniques: conjunctival flap, amniotic membrane transplantation, penetrating keratoplasty. The advantages and also the limits of every technique are presented and also different ways of combining them. The lecture tries to establish the advantages and also the limits of each technique and to set the optimum time to start the surgical treatment.

- Lubricin: Translating an idea into a safe and effective treatment for dry eye disease

David A Sullivan, Harvard, Boston, MA, SUA

Purpose: We discovered with our collaborators that lubricin, a natural boundary lubricant, is transcribed, translated, and expressed by human ocular surface epithelia. We also discovered that lubricin deficiency

promotes corneal damage, and that lubricin presence significantly decreases friction between the human cornea and conjunctiva. Given these results, we hypothesized that lubricin would reduce shear stress and prevent the development of corneal epitheliopathy in patients with dry eye disease (DED). The objective of this study was to test this hypothesis. Method: We conducted a two-week, randomized, double-masked clinical study to assess the safety and efficacy of topical recombinant human lubricin (150 µg/mL), as compared to sodium hyaluronate (HA, 0.18%), in people with moderate DED. Visual analogue scale, as well as burning/stinging, itching, foreign body sensation, pain, sticky feeling, blurred vision and photophobia were primary outcome measures, and secondary endpoints included corneal fluorescein staining, tear film breakup time (TBUT), Schirmer test, and eyelid and conjunctival erythema. Results: Our findings show that lubricin treatment, as compared to that of HA, significantly decreased the symptoms of foreign body sensation, sticky feeling, blurred vision and photophobia in at least one eye. Lubricin also significantly improved the TBUT, and signs of corneal fluorescein staining, and eyelid and conjunctival erythema. No therapy-associated adverse events occurred during this clinical study. Conclusions: The topical application of recombinant human lubricin significantly alleviates both the signs and symptoms of moderate DED. (This study was recently published [Lambiase et al, Ocul Surf 2017;15:77-87]. The clinical trial was supported by Dompe farmaceutici s.p.a., Italy, and Lubris BioPharma, Boston MA, and performed by the contract research organization CROSS Sa – Switzerland).

- Treatment of dry eye disease – update

Cristina Stan, Cluj-Napoca

In this paper we correlate pathophysiological mechanism of Dry Eye Disease with treatment principles. DED is a multifactorial, chronic, immune-mediated inflammatory disease. When the balance of the lacrimal functional unit is disturbed, begins a self-perpetuating cycle of inflammation

and epithelial damage of the ocular surface. To prevent the entrance in the vicious circle we have to eliminate the external factors (such as dry environmental, medications, ocular surgery, aging) and to exit the circle we have to shut down the mechanisms like: tear insufficiency, hyperosmolarity, apoptosis, inflammation. To fight DED someone needs both tear substitutes and treatment for the others pathogenic mechanisms

- Optive Fusion- a complete solution from Allergan for dry eye treatment

Giuri Stela, Timișoara

Optive Fusion is an innovative product whose clinical efficacy is due to the unique formula that contains for the first time two synergistically-active polymers: carboxymethylcellulose and hyaluronic acid. This combination produces a flexible matrix, a matrix bridge that provides long-lasting lubrication and hydration, as well as an active promotion of ocular surface remodeling (by the mucomimetic protective effect of carboxymethylcellulose and stimulation of cellular migration supported by hyaluronic acid). The osmoprotective action of Optive Fusion is due to organic osmolites (glycerol and erythritol) which provide the osmotic balance and optimal cell hydration. Optive Fusion provides long-lasting, comfortable, protection for the ocular surface, featuring an excellent safety and tolerability profile

SECTION DEDICATED TO THE ACTIVITY OF LIONS CLUBS WITH THE VIEW TO PROTECT VISION

- Preliminary results of ophthalmological screening organized by Lions Club D Iași

Camelia Margareta Bogdănici, Iași

Lions- District 124 Romania applied this year for Sight First grant that was approved by Lions International for 10 ophthalmological screening devices (Welch Allyn) which will be used for ophthalmological examination of children from Romania. This grant gave birth to the action, “Knights in the fight against darkness”, which has 2 main objectives: the donation of a Braille printer for the Association of Blind people from Romania and the acquisition of 10 ophthalmic screening devices. During August – September 2017 We examined 194 patients (186 children): 0-3 years: 39 cases (15 F + 24 M), 4-6 years: 61 cases (29 F + 32 M), 7-10 years: 65 cases (29 F + 36 M) and 11-16 years: 21 cases (8 F + 13 M). Ocular diseases for children: 27 children with refractive errors (14%), 14 patients has esotropia and 2 exotropia (8,6%), 1 patients Telecantus and 1 with Nistagmus, 3 children has Retinopatya of prematurity and 1 patient Microftalmia. In conclusion, ophthalmological screening realised by Lions members is very important for early diagnosis of ocular diseases.

- Vision screening for Romanian Special Olympics and Young Athletes contestants

Paul Ioan Grecu, Adrian Găvănescu, Adela Roman, Mirela Dănilă (București), Răzvan Ionescu (Ilfov), Georgiana Milea, București

Special Olympics National Games (SO) are a series of sporting competitions for athletes with intellectual disabilities, where they are encouraged to socialize and to easily integrate into collectivities. SO are held once a year in a different city and promotes volunteering and team working also with local Lions Club member’s support. In the last 6 years it took place in Iasi, Craiova, Târgu Mureș, Arad and Baia Mare. Around 300 persons with intellectual disabilities participate every year to SO and beginning with 2008 they are also getting a vision screening with this occasion. Volunteer eye doctors are trained how to best interact with these special athletes. Young Athletes Camp is also organized by Special Olympics Foundation: children, less than 7 years old, are examined in order

to have an early detection of any eye problems. It's very important for them to get this vision screening at this age, so they would have a better chance of recovery. The vision screening includes the following tests: visual acuity, ocular alignment and motility, stereopsis, fundus, refraction and the external and anterior segment of the eye. Over the years the examinations revealed a high incidence and prevalence of refractive errors and some eye pathology as: conjunctivitis, keratitis, congenital cataracts, congenital glaucoma suspicion, strabismus, degenerative myopia and nystagmus. An important aspect is the fact that most of the contestants benefit for this eye check for the first time in their lives. If the vision screening raises suspicion of any eye pathology it is recommended to contact a specialist for a follow up eye care.

- Protection of vision in children from disadvantaged families

Adriana Stănilă, Sibiu

I will present the Club's activity related to the protection of vision in disadvantaged families. I organized a class of children with low vision to be educated and trained in Sibiu because they did not have the opportunity to go to well-known centres like Cluj. I have operated from bilateral congenital cataract three brothers with the same mother, but with different fathers. I will present the evolution of these children as well as their social integration.

- Humanitarian Actions - Alternative to Leisure

Fildis Mrini, H. Mrini, Constanța

The retrospective of the years anchors us in the reality of the present, thus realised what we have done with the "Leisure" of the Past. Mrini Eye Hospital & Lions Constanta have transformed Time into "Health of Vision" and into Charitable Events over the last 7 years through a partnership based on the same principles, ideals, emotions and thinking, all for the benefit of

the community. Humanitarian actions, in our perception, have no taste, smell or religious colour; they are based on responsibility and naturalness. Time may represent Day or Night, an individual's "Free Time" is his option to consume day or night. Time may mean Creation, and we chose to "Create" through charitable actions sustained over the years. Doing good can only cost you Time and Involvement, and what you get back, can never be quantified in money: Smile, Joy and Happiness of some people who need help. This publishing reminds us nostalgically of the happy and sad moments with the needy people - young, elderly, children. A Number of patients benefiting from humanitarian actions on the part Mrini Eye Hospital & Lions Constanta "does not exist" because we never made a summary. We think the summary is done in the End but we have not reached the End!

- Prevention and ophthalmology education beyond charitable actions

Fildis Mrini, H. Mrini, Constanța

Under the partnership of Mrini Eye Hospital & Lions Constanta, charity activities aimed not only at Consultations and Treatments, but also at Elementary Ophthalmological Medical Education. We consider Medicine to be Prevention and Prevention is Communication. In front of the patient we gave up the scientific words and "translate" every gesture, symptom or illness always making analogy with the nature or objects of real life. We have indirectly transmitted "Educational Encodings" through details that made the difference: Communicating to patients with a lot of Patience and Tact, and last but not least Feedback of Efficient Communication: to be positive by the expression of the patient who smiles and finally says: "... Now I understand ...!" Charitable actions are not just doing a good thing and leaving, it means Involvement, Patience, Perseverance and Tolerance. International Day of Vision, World Glaucoma Week, Health Day, Women's Day, Children's Day, School like Other - all are "Soul Projects" for which Mrini Eye Hospital & Lions Constanta has been there for 7 years to raise

awareness and awareness of the Health of Vision, to empathize with those in distress and prevent Blindness.

SCIENTIFIC PAPERS, SYMPOSIA

- The ocular surface protection in exposure keratopathy

Dan Mircea Stănilă, Adriana Stănilă, Alina Adriana Panga, Sibiu

The Exposure Keratopathy (EK) is secondary to incomplete occlusion of eyelids and can lead to consequent drying and damage to corneal epithelium. The etiology include: VII facial nerve palsy, lid abnormality- lagophthalmos, ectropion, thyroid eye disease - exophthalmia. The aim of the study is to show our strategy in the treatment of EK. Material and method: We took in the study a number of 34 cases with chronic facial nerve paralysis with lagophthalmos, 19 cases associated with ectropion, 2 cases with exophthalmia, which were treated in the Sibiu Emergency Clinical County Hospital and Ofta Total Clinic Sibiu. Results and discussions: The treatment of this ocular surface disease aims at improving vision and discomfort in addition to supporting the ocular surface. Treatment was divided in three main categories depending to the etiology and time of recovery and was: medical, protective and surgical. Medical treatment included preservative-free artificial tears, autologous serum, ocular bioprotection, regenerative therapy, matrix therapy, ointment with vitamin A for cases with damage of corneal epithelium; in corneal ulceration we also associated to this therapy antibiotic and anti-inflammatory therapy, locally and generally. Protective therapy consisted of therapeutic contact lenses (TCL) and human amniotic membrane (HAM). Surgical management was made for chronic complicated cases with weight implant in the upper lid, ectropion correction and tarsorrhaphy Results were good when we followed the right steps related with the etiology. Conclusions: The treatment of the ocular surface diseases is indicated to be done, as often as possible, with preservative-free solutions. New therapies are available

nowadays that restore the corneal extracellular matrix and, regenerative to help the epithelium to heal. TCL and HAM are the solutions for the protection of the ocular surface. Surgery is the last solution, sometimes the best in refractory cases.

- The advantages of new ABCD keratoconus grading

Gabriel Vulpe, Cluj-Napoca

The new ABCD Belin keratoconus classification by Prof. Belin, MD, USA, independently grades the anterior corneal surface, posterior corneal surface, corneal thickness, and visual acuity. The new grading offers significant diagnostic and evolution following advantages over the old Amsler-Krumeich system.

- Novel approaches to managing evaporative dry eye in clinical practice

Jennifer Craig, New Zealand

As many as 86% of dry eye patients are reported to have issues with tear quality rather than tear quantity, resulting in an evaporative dry eye. Epidemiological studies suggest that Meibomian gland dysfunction is present in up to 30% of Caucasian populations and in up to 60% of Asian populations, yet the condition continues to be managed sub-optimally in clinical practice. Raising eyelid temperature to melt the inspissated gland contents has been shown to be beneficial but patient compliance with traditional warm compress therapy on an ongoing basis is notoriously poor. A number of therapies purporting to improve meibomian gland function have become available in recent years. Evidence will be drawn both from the published literature and from studies conducted in the Ocular Surface Laboratory at the University of Auckland to provide clinicians with a practical update on available therapies for MGD, ranging from traditional

compresses and portable devices for use by the patient at home, through to office-based devices using intense pulsed light and thermal pulsation.

- The importance of early treatment of keratoconus by UV-X transepithelial crosslinking

Adriana Grițco, Eugeniu Bendelic, Elena Chisleacova, Chișinău

Early treatment of keratoconus by UV-X transepithelial Crosslinking has been shown to be a minimally invasive method, with minimal risk of complications and a high chance to slow disease progression by preserving and improving visual acuity in most cases.

- Bilateral multifocal choroiditis

Oana Mușat Banu Panait, Brăila

It presents the case of a young man of 27 years with BCVA RE = hm, BCVA LE = 1/50 who has bilateral multifocal choroiditis and cystoid macular edema RE. All tests for the detection of choroiditis etiology are negative. After treatment with oral corticosteroids BCVA RE is improved to 4/5, left eye has no visual acuity improvement because of old choroidal scars.

- Fitting the lens to the patient and not the other way around with Mark'Ennovy contact lenses

Francisco Mateos Martin, Spain

Although a wide variety of contact lenses are available to correct astigmatism a proportion of patients continue to struggle to obtain comfort or stable vision. Discounting physiological reasons, the most common reason for this is simply because the lens does not fit the eye correctly. Mass manufactured lenses are available usually in one or two base curves and normally one diameter, this has deskilled the fitting process and taken the

choice away from ECPs. This lecture will demonstrate the need for a variety of base curve and diameter choices in order that each patient can be offered the best choice of lens for their particular needs. The use of Mark'Ennovy range of custom lenses to achieve this will be discussed and techniques for fitting this type of lenses will be examined.

- Combined procedures for obtaining emetroty in young patients with extreme refractive errors

Călin Tătaru, Emilia Frone, Irina Cristescu, Cătălina Tătaru, Anca Dogăroiu, București

Purpose: Evaluation of postoperative outcomes after phakic intraocular lens implantation and supplementary interventions in order to obtain emmetropia at patients with extreme refractive errors. Methods: We present the case of a young woman with high myopia. After the initial evaluation we establish that a phakic implant will not be enough to correct all the refractive error. We decide to use a combined procedure – BIOPTICS technique. In order to do this we did a flap with the FS200 laser and after that we implanted a VISIAN ICL of -18D. Following this intervention the patient remained with a -4D myopia. For this residual myopia we perform a laser ablation with the EX500 laser. Conclusion: The BIOPTICS technique is an excellent solution for both high diopters and postoperative refractive errors.

- Effectiveness of transpalpebral treatment in Dry Eye Syndrome

Adriana Stănilă, Sibiu

- Dry eye and Sjögren disease

Cristina Stan, Cluj-Napoca

We discuss a severe case of dry eye in a female patient with Sjögren Disease, emphasize that dry eye is a ocular surface disease and it can lead to low vision and low quality of live.

- **Diagnosis problems in dry eye syndrome**

Valeriu N. Cușnir, Valeriu V. Cușnir, Nina Bulat, Vitalie Cușnir, Chișinău

Dry eye syndrome (DES) is an ocular surface disorder, which, in the conditions of economic, technological and habitual changes during the recent years (environmental pollution, extended working periods on the computer) is becoming more frequently encountered. The purpose of this work was to study the prevalence of DES in the Republic of Moldova. 219 patients with the age range of 19-50 years, were investigated. Specific for this lot was the professional aspect, namely the work in the information technology field. Each patient was thoroughly examined: visual acuity without and with correction, biomicroscopy, automated perimetry, Schirmer's test. For the subjective assessment of patients the Ocular Surface Disease Index (OSDI) was used. According to OSDI, dry eye symptoms had 68(31.0%) of the total of 219 examined people. According to the Shirmer's test results and/or the OSDI score, DES signs/symptoms with uni- or bilateral impairment were determined in 142 patients (64.8%). The results of the Schirmer's test showed a low tear secretion ($\leq 15\text{mm}/5\text{min}$) in 183 eyes. In many cases, a discrepancy between the intensity of the symptoms and the presence of clinical signs was observed. Thus, 34(23.9%) of the 142 patients had dry eye symptoms, but the lacrimal secretion was greater than 15 mm/5min. At the same time, 51 persons (35.9%) were found to have lacrimal hyposecretion without symptoms of dry eyes according to the OSDI score. The gender distribution showed that the number of women with signs or symptoms of dry eyes is higher than the number of men (66.9% / 33.1%). Thus, DES has an increased prevalence (64.8%) among young and able-bodied patients in the Republic of Moldova, compared to literature data

(5-30%). The discordance between OSDI scores and clinical signs makes it more difficult to assess the degree of severity of the disease.

SCIENTIFIC PAPERS, SYMPOSIA

- The role of oculoplastic surgery in ocular surface protection

*Speranța Schmitzer, Ioana Popteanu, Ana-Maria Mănescu (București),
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An anatomically and functionally normal eye surface is essential to have a good visual acuity. Any change, minor at first, untreated medical or surgical, can severely the visual function and the quality of life of the patient. It is essential to avoid, as far as possible, the last step in the treatment of the eye surface - corneal transplantation.

- Various pathology of cornea and conjunctiva related with cataract surgery - Video

Oana Musat Banu Panait, Brăila

There are shown shows five cases of cataract surgery associated with corneal leucoma after burns, lattice corneal dystrophy, pterigion, corneal vascularisation and Parkinson disease, Sjogren syndrome. Technical difficulties are related with difficult visualization as well as the type of cataract.

- Dry eye and Meibomian gland dysfunction

Adriana Stănilă, Sibiu

- Treatment strategies in neurotrophic keratopathy

Dan Mircea Stănilă, Adriana Stănilă, Alina-Adriana Panga, Sibiu

Neurotrophic keratopathy (NK) is an orphan disease related with the alteration of sensory and trophic function with consequent breakdown of corneal epithelium, affecting health and integrity of both the epithelium and corneal stroma, being the result of secondary damages of sensorial innervation. The degrees of NK are classified in three stages (the Mackie classification) related with the disease severity. The aim of the study is to show our strategies in the treatment of NK in every stage of severity. Material and method: We took in the study a number of 30 patients with NK, stage 1- epithelial alterations, stage 2- persistent epithelial defect, stage 3- corneal ulcer, treated in Ofta Total Clinic Sibiu and the Emergency Clinical County Hospital of Sibiu. Results: The treatment strategies that we used according to the stage of NK. In the group of patients who presented stage 1 with corneal epithelial alterations, we used artificial tears with preservative-free solution, natural ocular bioprotection, autologous serum, regenerative therapy, matrix therapy with Carboxymethyl glucose sulphate (RGTA), ointment with vitamin A, topic anti-inflammatory drops AINS and systemic therapy related to the etiology. Stage 2 group presented corneal alteration with stromal involvement, so the treatment was medical, matrix therapy RGTA, TCL, human amniotic membrane transplantation (HAM) and Tarsorrhaphy. Stage 3 included the patients with corneal ulcer, stromal melting and possible corneal perforation. In this stage, we used all kind of medical treatment, protective and surgical treatment with HAM and Tarsorrhaphy. Discussions: The prognostic of NK depends on the degree of the corneal anesthesia, the sensory impairment and last but not least, the association with other comorbidities or older ages. In the future, new therapies are suggested with Murine nerve growth factor (mNGF). Conclusions: NK is a very difficult pathology to treat. We must treat the

underlying disease. Under our therapeutic strategy, we succeed to control this disease.

- Dry eye syndrome

Adriana Stănilă, Sibiu

- Mature cataract associated with small pupil- surgical solution. Video

T. Tomi, Ioana Ruxandra Rusu, S. Tomi, Cluj-Napoca

We present the surgical solution for a few cases of patients with mature cataract associated with small pupil.

- Sodium hyaluronate and herbal distillates in dry eye syndrome

Daniel Dumănescu, Cluj-Napoca

- Corneal recurrent erosion and patient quality of life

Adriana Stănilă, Dan Mircea Stănilă, Alina-Adriana Panga, Sibiu

Recurrent corneal erosion (RCE) syndrome is a condition that is characterized by a disturbance at the level of the corneal epithelial basement membrane, resulting a poor adhesion and recurrent detachment of the epithelium. The reappearance of this RCE is often and the clinical sings are: ocular pain, decrease of visual acuity, foreign body sensation, tearing and photophobia, affecting patient quality of life. The aim of the study is to show different options of treatment in this disease. Material and method: We took in the study a number of 30 cases with RCE treated in the Ophthalmology Department of the Sibiu Emergency Clinical County Hospital and Ofta Total Clinic, Sibiu. Results and discussion: From the beginning of RCE diagnosis, our strategy was corneal abrasion and treatment with preservative-free artificial tears, regenerative therapies, matrix therapy with Carboxymethyl glucose sulphate (RGTA), autologous serum, natural ocular bioprotection and with TCL for a long period of time.

Lately, we have adopted a new procedure for corneal abrasion, using a technic described by H. Dua with a special device and alcohol 20% with very good results. Conclusions: CRE must be treated as early as possible. Corneal abrasion must be done in all cases. This technique with special devices is a very good innovation. TCL improves the Qof L.

- Protection of retina

Adriana Stănilă, Sibiu

- Keratoconus- results after 7 years of follow-up

T. Tomi, Ioana Ruxandra Rusu, S. Tomi, Cluj-Napoca

The authors present the results of 100 cases with various stages of keratoconus, treated and followed for 7 years. The visual acuity, refraction, corneal topography were evaluated.

- The use of amniotic membrane in the treatment of corneal ulcer

Cristina Ariadna Nicula, Ioana-Teodora Stanculescu, Ozana Iulia Ivan, Cluj-Napoca

Introduction: The first successful use of human amniotic membrane (HAM) in the restoring of the corneal surface was reported by the English ophthalmologists in 1946, managing to correct the corneal damage due to caustic burns, this method gaining more popularity in the last two decades. The aim of this study is to evaluate the efficacy and safety of the application of the amniotic membrane in different pathologies of the cornea which lead to ulceration or perforation of the external surface of the eye. The most common injuries are traumatic corneal ulcers, burns and keratopathies. **Material and method:** This study is a retrospective study on 17 eyes, from 15 patients who underwent surgery with application of either a monolayer or a multilayer of amniotic membrane to correct corneal perforations. The collected data belong to patients that were hospitalised at Cluj-Napoca's Eye

Clinic, between 2011-2016, with a follow-up at 6 months and 12 months. Results: Out of 17 eyes, 15 (88,2%) underwent complete recovery, meaning that after surgery there was no further progression of the stromal lesions and epithelial losses were limited. Conclusion: Results demonstrated that the presence of antiangiogenetic and anti-inflammatory factors in the amniotic membrane helps decrease inflammation and neovascularisation, as well as it functions as a biological barrier. Also, the amniotic membrane acts as a substrate to epithelial growth, helping the residual limbal stem cells to proliferate. Concluding, the amniotic membrane transplant is a reliable and very effective method to care for corneal ulcers that are otherwise impossible to treat with medical treatment alone.

Key words: corneal ulcer, ocular burns, bullous keratopathy, amniotic membrane

- Beneficial opportunities in dry eye syndrome

Adriana Stănilă, Sibiu

SCIENTIFIC PAPERS – SESSION DEDICATED TO RESIDENTS

- Contact lens intolerance – dioptric evolution and solutions

Mădălina Iuga, București

Background: Corneal neovascularization, an in-growth of superficial or deep blood vessels into the cornea, is a sign of corneal oxygen deprivation and stress. This condition is most often associated with contact lens overwear. It can also be caused by toxic effects from lens or solutions, or traumatic causes such as damaged or heavily deposited lenses. It typically involves both eyes. Many cases of corneal neovascularization are asymptomatic, with some patients noticing redness around the cornea. Other symptoms include: eye pain, tearing and photophobia (light sensitivity), red redness, contact lens intolerance after a few hours of wear, and decreased vision.

Case history: We will present a case of a 21 years old female complaining of eye redness, pain and decrease of visual acuity in the left eye. The patient is known with low myopia and myopic astigmatism in both eyes and is using contact lenses for more than 6 years. The ophthalmologic exam shows corneal neovascularization, perilimbal oedema and significant dioptric changes (approximately 4 spherocylindrical diopters) in the left eye, the right eye appearing normal. After not wearing contact lenses the neovascularization disappears and the refraction stabilized in 6 months, but at a value of over 3 myopic dioptres. Refractive surgery was used to correct the myopia completely with favourable evolution. Conclusions and points for discussion: The refractive surgery was efficient and stable in time, but we must also think about solutions for when our patient might get pregnant. The particularity of the case is that the patient came in with mild contact lens intolerance symptoms (late discovery of dioptric change due to young age-related accommodation, late redness and pain of the eye).

- The evolution of corneal ectasia and its refractive treatment (late-onset keratoconus)

Mihai Milicescu, București

Background: Cross-linking of collagen refers to the ability of collagen fibrils to form strong chemical bonds with adjacent fibrils. In the cornea, collagen cross-linking occurs naturally with aging due to an oxidative deamination reaction that takes place within the end chains of the collagen. It has been hypothesized that this natural cross-linkage of collagen explains why keratoectasia (corneal ectasia) often progresses most rapidly in adolescence or early adulthood but tends to stabilize in patients after middle-age.

Case history: We present the case of a 69 year-old female patient, complaining of decreased visual acuity in both eyes. On our examination, we found slight lens opacity as well as high-grade astigmatism in the left eye (patient known with low spherocylindrical aerial correction).

Following ophthalmological tests, we noticed the presence of corneal ectasia on the posterior surface of the cornea, predominantly in the left eye. We opted for corneal cross-linking treatment, while monitoring its stability over time. At 6 months postoperatively, the evolution was favorable and we decided to correct the residual astigmatism by implanting a toric artificial lens, with a favorable outcome. Conclusions and points for discussion: Treatment with toric IOL implant after cross-linking was efficient and stable over a long period of time without necessitating further surgery. The particularity of the case resides in the late-onset of a keratoconus-type corneal ectasia.

- The damage of ocular surface due to uncontrolled intraocular pressure in neovascular glaucoma

Alina-Adriana Panga, Dan Mircea Stănilă, Adriana Stănilă, Sibiu

Neovascular Glaucoma (NVG) is a severe form of glaucoma characterized by neovascularization and the proliferation of fibrovascular tissue in the anterior chamber angle. Patients with NVG generally present with elevated intraocular pressure (IOP) and may experience severe pain. Ocular surface (OS) is deeply affected by high IOP in NVG and can lead to marked mixed conjunctival congestion associated with edematous cornea. The aim of the study is to show how we can prevent and treat the suffering of the ocular surface to the NVG patients. Material and method: We took in the study a number of 38 eyes from 35 patients with NVG in the stage 3 with angle closure glaucoma, who presented high IOP and impaired ocular surface. The etiology of NVG was diabetic retinopathy, central vein occlusion and anterior ocular ischemic syndrome. The management of neovascular glaucoma in eyes with high IOP was medical, laser and surgical. Results and discussions: The ocular surface was damaged in patients who presented IOP between a minimum of 38 mmHg and maximum of 89 mmHg. The main factor in the ocular surface damage in NVG is elevated IOP. The symptoms that patients presented were:

conjunctival congestion in particular perikeratic, epithelial and stromal corneal edema, epithelial bubble, corneal ulcerations. Treatment followed rapid drop in IOP and the restoration and protection of ocular surface: medical treatment with artificial tears, autologous serum, matriceal therapy, liposome therapy, ocular surface bioprotection, antibiotic drops, corticosteroids, nonsteroidal anti-inflammatory drops. Protective treatment, with therapeutic contact lenses, with amniotic membrane transplant and tarsorrhaphy in complicated cases. Surgical treatment included the trabeculectomy with antimetabolites and antifibrotic agents and intravitreal injections with anti-VEGF agents and sometimes to stop iris neovascularization in anterior chamber. Conclusions: NVG is a very difficult pathology and is very hard to manage. The uncontrolled IOP in NVG patients affect the ocular surface and leads to complications. Uncontrolled IOP is the main risk factor involved in the suffering of ocular surface. Long-term maintenance of normal intraocular pressure is important in NVG management but also in protecting the ocular surface.

- Clinical approach of the alkali ocular burns. Case report

Oana-Maria Bodea, Elena Mihai, Cristina Roth, Sibiu

Abstract: Ocular chemical burns are common and serious ocular emergencies that require immediate and intensive evaluation and care. Young males are predominantly affected, and therefore loss of vision and disfigurement could dramatically affect their lives. The clinical course can be divided into immediate, acute, early, and late reparative phases. We present the case of a 44-year-old male, admitted in emergency for sudden visual loss in both of the eyes (OS > OD), associated with ocular pain, tearing, and photophobia. The patient was diagnosed with bilateral alkali corneo-conjunctivo-palpebral burn, for which he underwent medical treatment, general (antibiotics and vitamins) and local (autohemotherapeutic agents, antibiotics in combination with anti-inflammatory steroidal agents, vitamin C, in addition to preservative-free corneal reepithelialization agents)

with a favourable evolution of the right eye. Supplementary to the medical treatment a surgical treatment was performed, covering the ocular surface (OS) with conjunctival membrane. The structural damage of the left eye persisted, so we choose the new matrix regenerating therapy with a favourable evolution for the corneal epithelium. After 7 months, the patient has a 0.9 (OD) and 0.2 (OS) vision with a healed corneal epithelium.

Keywords: ocular burn, alkali, persistent corneal epithelial defect

POSTERS SESSION

- The systemic treatment of dry eye syndrome

Andrei-Cătălin Munteanu, Anca Butucă, Anca-Maria Juncan, Felicia-Gligor, Adriana Stănilă, Sibiu

The dry eye syndrome (DES) is a common ocular surface disease which affects the patient's life quality with chronic symptoms such as eye irritation and blurred vision, although it is not a severe disorder. The main cause of this disease has been thought to be a decrease in tear secretion and/or inflammation around eye. It has been known that the n-3 fatty acids and its metabolic products suppress the inflammation around the eye, same as vitamin D's metabolites. This poster presents an overview of animal model studies and human clinical trials that have shown that dietary modification and oral supplementation could be complementary therapeutic strategies for the treatment of dry eye. The aim of this poster is also to review the connection between the dry eye syndrome and the lack of vitamin D level from the human serum and the one between the concentration of Omega 3 fatty acids and the DES. Both, vitamin D and the Omega 3 fatty acids can be found in many pharmaceutical products and complete the daily needs of the human body. These two alternatives in the treatment of DES are well tolerated by patients and represent a good option for correcting the tear film's composition.

- Correction of Trichiasis – case report

Adrian Teodoru, Larisa Brehari, Sibiu

We present the case of an 84-year-old patient diagnosed with AO Cataract, AMD, Trichiasis, Age Related Macular Degeneration, RE: Astigmatism, Amblyopia. BCVA OD = 0.04, BCVA OS = 0.08. We performed the surgical treatment of trichiasis, followed by the cataract surgery.

- Treatment of a persistent deep epithelial defect

Adriana Stănilă, Dan Mircea Stănilă, Alina Adriana Panga

Introduction: Corneal epithelial defects heal quickly and without incidents. When these defects do not heal in normal time, as defined in the literature within two weeks, they become known as persistent epithelial defects (PED). The conditions that lead to a persistent epithelial defect fall into four major categories (adapted from Albert DM, Miller JW): epithelial/limbal stem cell deficiency, inflammatory diseases, neurotrophic diseases, mechanical factors. The aim of the study is to show our treatment options in PED in relation with the etiology. Materials and Methods: We included in the study a number of 38 cases of PED: epithelial/ limbal stem cell deficiency - 5 cases, inflammatory diseases - 5 cases, neurotrophic diseases - 16 cases, mechanical factors - 12 cases, treated, operated and followed-up in the Ofta Total Clinic and department of ophthalmology of the Clinical Emergency Hospital of Sibiu. Results and discussions: Treatment algorithm in all cases was medical: lubrication and topic therapy preservative-free, therapeutic bandage soft contact lens (TCL), autologous serum, regenerative therapy, liposome therapy, matrix therapy and related with etiology, anti-inflammatory and antibiotics, sometimes systemic therapy as well. Surgical management in refractory cases was with amniotic membrane grafting and tarsorrhaphy. In mechanical PED secondary to facial nerve paralysis, we performed weight implantation in the upper lid with or

without correction of the ectropion. Using this treatment algorithm, the results were good; the epithelisation of cornea was accelerated. We did not lose any eye. Conclusions: The treatment of PED is multifactorial. The combination with different therapies related with the etiology can lead to good outcomes. Artificial tears without preservatives are welcome, autologous serum is very efficient, matrix therapy leads to very good results, tarsorrhaphy in refractive cases remains the gold standard, weight implant is chosen in PED secondary to facial nerve palsy, TCL are a great benefit in the treatment of PED, accelerated healing, restoring binocularity and improving the quality of life.

- The development of refractive errors correction methods

Adrian Teodoru, Minodora Teodoru, Sibiu

The first found lens dates from about 3000 years ago. The reading stones appeared after the 8th century. Between the first two millennia, Alhazen perfected some laws of refraction. By 1301, Venice established guild regulations for sale of eyeglasses. Later, they also become a fashionable device. Modern refractive correction techniques include contact lens, refractive surgery, without replacing the classical optical correction.

- Scleral wound with metallic orbital foreign body – case report

Adrian Teodoru, Larisa Brehari, Minodora Teodoru, Sibiu

We report the case of a 37-year-old male, who presented in our clinic after suffering an ocular trauma by the projection of a metallic foreign body into the right eye. In the first hours after the presentation we practiced the suture of the scleral wound. Then, the orbital foreign body was extracted by neurosurgical approach.