13th Black Sea Ophthalmological Congress

BLACK SEA OPHTHALMOLOGICAL SOCIETY
OPHTHALMOLOGICAL ASSOCIATION OF MOLDOVA

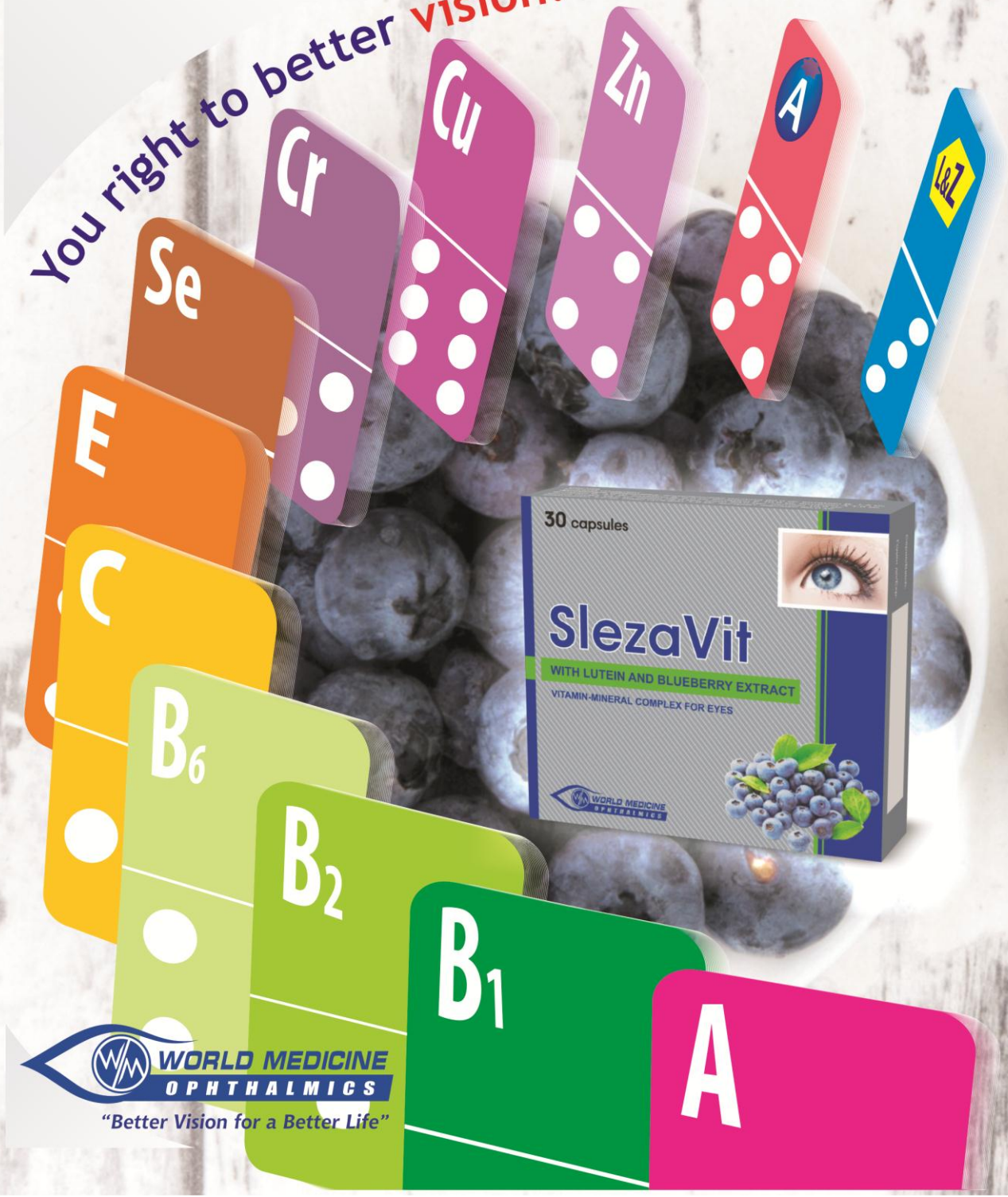
Abstract Book

29 October-1 November, 2015
Chișinău, Republic of Moldova

VITAMIN-MINERAL COMPLEX FOR EYES

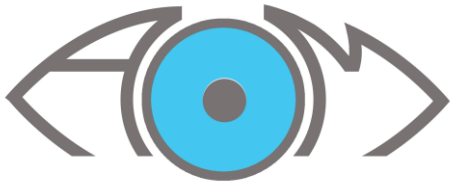
SlezaVit

You right to better vision!



WORLD MEDICINE OPHTHALMICS

"Better Vision for a Better Life"



Black Sea Ophthalmological Society
Ophthalmological Association from Moldova

13th Black Sea Ophthalmological Congress
29 October- 1 November, 2015
Chisinau, Republic of Moldova

CONTENTS

Welcome by President of BSO Congress 2015

Dear Friends and Colleagues,

On behalf of the Black Sea Ophthalmological Society (BSOS) it is my honor and pleasure to invite you to the BSOS's 13th Congress, taking place in Chisinau, Moldova.

The BSOS was founded in 2002 as an organization of ophthalmologists of the Black Sea region with the mission of increasing communication and exchange of knowledge between its members. Member countries include: Bulgaria, Georgia, Moldova, Romania, Russia, Turkey and Ukraine. Azerbaijan, Armenia and Greece are associate members. The BSOS has been a member of the International Council of Ophthalmology (ICO) since 2013.

Each year one of BSOS's member countries organizes the congress. Congresses are held with international participation and have proved to be very successful in promoting the mission of the society. Previous congresses were held in: Tbilisi, Georgia (2002); Odessa, Ukraine (2004); Istanbul, Turkey (2005); Anapa, Russia (2006); Odessa, Ukraine (2007); Varna, Bulgaria (2008); Batumi, Georgia (2009); Anapa, Russia (2010); Istanbul, Turkey (2011); Sinaia, Romania (2012); Tbilisi, Georgia (2013) and Sochi, Russia (2014).

This year Ophthalmological Association of Moldova (OAM) offered to organize the congress in Chisinau, Republic of Modova. In this age of increased internet communication the dissemination of knowledge has become much easier, but congresses still hold their importance as an essential means of exchange of knowledge between ophthalmologists. We believe that local congresses, such as the one to be held in Moldova, provide a rich medium for scientific and social interaction between participants. Previous congresses have all been extremely successful in this way.

This year we have distinguished speakers and delegates from the member countries, as well as other countries. We are deeply grateful for the support and participation of European Ophthalmology Society (SOE), the International Agency for the Prevention of Blindness (IAPB), and the European Society of Cataract and Refractive Surgeons (ESCRS) for organizing sessions. These sessions will enhance the scientific level of the congress and raise greater interest for future meetings.

Dear Colleagues, on behalf of the board of BSOS I wish you a wonderful congress where you will be able to listen to the latest advances in ophthalmology, make new acquaintances, and enjoy the beautiful city of Chisinau and Moldovan hospitality.

I would also like thank the BSOS, OAM, the local organizing committee, and especially Prof. Mahmut Kaskaloglu for their generous efforts for the organization of this congress.

Prof. Eugen Bendelic,
President of BSO Congress 2015

Welcome by President of Local Organizing Committee

Dear colleagues and friends,

We wish to welcome you all, on behalf of Ophthalmological Association from Moldova (OAM), to 13th Black Sea Ophthalmological Congress, hold in Chisinau, Republic of Moldova.

Today, our Association has encountered a new wave of development, where the former applied international standards give the best results namely through competitive ophthalmological specialists and scientific researches with impact in the domain.

We are glad to realize the fact that this Congress has become a take-off tem for innovating ideas, transformed into long-lasting partnerships with other similar societies from abroad. The international dimension of the event opens widely the horizon of the inter-society scientific cooperation and tends to promote the innovation current, originality, contributing at the same time to the improvement of the local medical society and to the development of each participant in part.

The 13th BSOS Congress will be a good occasion to learn and to meet old and new friends from all over the world.

I have the greatest pleasure to wish you, on behalf of OAM, a successful achievement of the Congress program, beautiful and unrepeatable experiences and challenges, as well as the best memories about our country.

Good luck!

Vladimir Boisteanu,
President of OAM

FUTARON

fusidic acid 1%
eye drops 5g

Maximum power ON

WORLD MEDICINE
OPHTHALMICS

"Better Vision for a Better Life"

Organizing Committee

Black Sea Ophthalmological Society
Founding President: Merab Dvali
Congress President: Eugen Bendelic
Board Members:
Bulgaria: Petja Vassileva
Romania: Mircea Filip, Daniela Selaru
Moldova: Eugen Bendelic
Ukraine: Nadiya F. Bobrova, Natalia Pasyechnykova
Russia: Alexander Zabalotniy, Sergey Sakhnov
Georgia: Merab Dvali, Oleg Golovochev
Turkey: Mahmut Kaskaloglu, Baha Toygar

Local Organizing Committee:
President: Vladimir Boisteanu
Secretary: Valentina Lupan
Members: Eugen Bendelic, Valeriu Cusnir,
Ala Paduca, Ion Jeru, Angela Corduneanu,
Gheorghe Ivanov, Lilia Dumbraveanu,
Rodica Sevciuc, Anatol Ojovanu,
Maria Iacubitchii, Andrei Chiaburu

Scientific Committee:
Eugen Bendelic
Mahmut Kaskaloglu
Merab Dvali
Baha Toygar

Scientific PROGRAM

29 October, 2015

12:00-16:00 Registration

18:00- 21:00 Welcome Reception

30 October, 2015

08:00-9:00 Registration

8:30-10:30 BSOS session/Palace of the Republic

Moderators: Prof. Mahmut Kaşkaloğlu, Prof. Petja Vassileva, Prof. Mircea Filip, Prof. Nadiya Bobrova, Prof. Alexander Zabolotniy, Prof. Merab Dvali, Ass. Prof. Vladimir Boisteanu

8.30 Prof. Dr. Mahmut Kaşkaloğlu. *Turkey*
OPTİONS İN REFRACTİVE CATARACT SURGERY

8.40 Dr. Cristina Nicula, Dr. D. Nicula, Dr. Raluca Popescu. *Romania*
RESULTS IN CATARACT SURGERY WITH PHACOEMULSIFICATION AT PATIENTS WITH IFIS SYNDROME

8.50 Sh.Chitiashvili, Prof. M. Dvali, N.Tsintsadze, N. Kvaratskhelia. *Georgia*
DIFFERENT REFRACTIVE BIOPTICS

9.00 Sh.Skhirtladze. Prof. Merab Dvali, T.Chitadze, I.Vardanashvili. *Georgia*
FUNCTIONAL VISION AFTER CATARACT REMOVAL WITH MULTIFOCAL AND ACCOMMODATING INTRAOCULAR LENS IMPLANTATION

9.10 Prof. Zabolotniy A., Misakyan K., Bronskaya A. *Russia*
QUALITATIVE ANALYSIS OF CHANGES IN THE POSTERIOR SEGMENT OF THE EYE WICH FEMTOSECOND LASER–ASSISTED CATARACT SURGERY

9.20 Prof. Dr. Baha Toygar. *Turkey*
LATEST TECHNOLOGIESIN PRESBYOPIA CORRECTING PC IOLS

9.30 Dr. Kürşat Çağın. *Turkey*
TORIC IOL ALIGNMENT WITH VERION SYSTEM

9.40 Prof. Nadiya Bobrova. *Ukraine*
PERSISTENT OBSCURATIVE PUPILLARY MEMBRAINE. SURGERY

9.50 Prof. Petja Vassileva. *Bulgaria*
CHALLENGES OF CATARACT SURGERY IN PATIENTS WITH PKP

10.00 Prof. Dr. Zeki Tunc. *Turkey*
TIPS FOR THE MANAGEMENT OF SUBLUXATED IOL: VIDEO CASE PRESENTATION

10.10 Prof. Tansu Erakgün. *Turkey*
MANAGEMENT OF INTRAOCULAR FOREIGN BODIES

10.20 Prof. Dr. Bora Eldem. *Turkey*
CHANGING CONCEPTS IN THE PATHOGENESIS OF DIABETIC MACULAR EDEMA

10.30 Prof. Pinar Aydin O`Dwyer. *Turkey*
ART AND OPHTHALMOLOGY

10:40-11:00 Coffee Break

11:00-12:00 OPENING CEREMONY/Palace of the Republic

12:00-13:00 LUNCH

13:00-14:30 SOE session/Palace of the Republic
European Society of Ophthalmology (SOE) session
Moderators: Prof. Stefan Seregard, Prof. Marko Hawlina

13.00 Prof. Janos Nemeth. *Hungary.*
DIAGNOSTIC IMAGING OF DRY EYE AND TEAR FILM

13.15 Prof. Mircea Filip. *Romania.*
MY EXPERIENCE WITH THE SMILE TECHNIQUE

13.30 Prof. Petja Vassileva. *Bulgaria.*
KEYS TO SUCCESSFUL MANAGEMENT OF PATIENTS WITH NARROW, OCCLUDABLE AND CLOSED ANGLE GLAUCOMA. WHO NEEDS AN IRIDOTOMY?

13.45 Prof. Stefan Seregard. *Sweden*
UVEAL MELANOMA IMAGING. THE STATE-OF-THE-ART

14.00 MD Cesare Forlini. *Italy*
VIDEO CASE PRESENTATION

14.15 Prof. Marko Hawlina. *Slovenia*
OPTIC NEUROPATHIES YOU SHOULD NOT MISS

Discussion

14:30-15:30 IAPB session/Palace of the Republic

Moderators: Prof. János Németh, Prof. Petja Vassileva

14.30 Prof. János Németh, Dorottya Szabó. *Hungary*
VISION 2020 AND WHO GLOBAL ACTION PLAN 2014-2019 TOWARDS UNIVERSAL EYE HEALTH

14.40 Prof. Petja Vassileva. *Bulgaria*
VISUAL SCREENING PROGRAMS IN CHILDHOOD

14.50 Hans Bjorn Bakketeig, Tatiana Ghidirimschi, Kare Ness. *Norway, Republic of Moldova*
SUPPORTING EYE CARE SERVICES IN THE REPUBLIC OF MOLDOVA

15.00 Tatiana Ghidirimschi, Hans Bjorn Bakketeig. *Norway, Republic of Moldova*
THE IMPORTANCE AND NECESSITY OF LOW VISION REHABILITATION SERVICES IN THE REPUBLIC OF MOLDOVA

15.10 Ass. Prof. Paduca Ala, Prof. Bendelic Eugen, Inga Sorbalo, Garaba Angela. *Republic of Moldova*
CATARACT SURGICAL COVERAGE AND BARRIERS IN THE REPUBLIC OF MOLDOVA

15.20 MD Magdei Corina, Magdei Eudochia, Verajan Victoria, Grigoriu Anastasia, Cernei Alexandra, Pînzari Luidmila. *Republic of Moldova*
RETINOPATHY OF PREMATURITY. 10 YEARS OF EXPERIENCE

Discussion

15:30-16:00 Coffee Break
16:00-17:00 GLAUCOMA / Palace of the Republic
Moderators: Prof. D.Chiseliţa; Prof. E. Bendelic

16.00 Prof. D. Chiselita. *Romania*
DIAGNOSIS AND THERAPEUTIC DIFFICULTIES IN GLAUCOMA

16.15 MD Aglaia Lobcenco, Ass. Prof. Vera Lupasco, Nicolai Frunze, Olga Sirbu. *Republic of Moldova*
DRAINAGE "GLAUTEX" - RD MODEL IN SURGERY OF REFRACTIVE GLAUCOMA

16.25 Ass. Prof. A. Corduneanu, Prof. E. Bendelic, R. Sevciuc, N. Corduneanu. *Republic of Moldova*
DIABETIC NEOVASCULAR GLAUCOMA

16.35 Prof. Dorin Chiselita, Anisia-Iuliana Alexa, Teodor Stefanache, Madalina-Adriana Chihaia. *Romania*
MEDIUM TERM RESULTS OF PENETRATING KERATOPLASTY

16.45 MD Ceban Cornelia, MD Chiriac Vera, Zabolotnii C., Ratcova T., Prisacaru-Beşleaga L. *Republic of Moldova*
SEMSIMED TRIGGERFISH CONTINUOUS MONITORING OF IOP

Discussion

17:00-17:40 WORLD MEDICINE ophthalmics Symposium
OCULAR INFECTIONS: RATIONAL APPROACH TO THERAPY

1. CONJUNCTIVAL BACTERIAL FLORA AND ANTIBIOTIC RESISTANCE PATTERN IN OCULAR BURNS

The use of FLOXIMED and TOBRIMED for prevention and treatment of infectious complications burns of the eyes.
Prof., PhD Yakimenko Stanislav, PhD Kostenko Petro.
The Filatov Institute of Eye Diseases and Tissue Therapy of The National Academy of Medical Sciences of Ukraine

2. ANTI-INFLAMMATORIES IN OCULAR BURNS TREATMENT

The use of MEDEXOL and CLODIFEN for the treatment of eye burn.
Prof., PhD Yakimenko Stanislav, PhD Kostenko Petro.
The Filatov Institute of Eye Diseases and Tissue Therapy of The National Academy of Medical Sciences of Ukraine

3. COMPLEX TREATMENT OF THE NEWBORN DACRYOCYSTITIS

The clinical use of FUTARON for treatment of the newborn dacryocystitis
PhD Magdei Corina
The Institute for Mother and Child's Protection, Department of Pediatric Ophthalmology, Republic of Moldova

17:40-18:15 Sponsors Presentation

1. *World Medicine ophthalmics*
2. *Rompharm*
3. *EyeBright Company*
4. *Oculus Prim*
5. BAUSCH + LOMB CONTACT LENSES: REDEFINING THE STANDARD OF VISUAL ACUITY, COMFORT AND EYE HEALTH
   Dr. Ionut Costache, Professional Consultant Bausch + Lomb

19:30 Cricova wine cellary **only guests*

31 October

09.00 – 13.00 ECRS session/Palace of the Republic
Moderators: Dr. Peter Barry, Dr. Richard Packard

09.00 Dr. Richard Packard. *UK*
THINGS RESIDENTS DO (A SELECTION OF COMPLICATIONS AND HOW THEY WERE DEALT WITH).

09.12 Dr. Bekir Sitki Aslan. *Turkey*
BIOMETRY: WHAT IS NEW AND IMPORTANT?

09.24 Prof. Camille Budo. *Belgium*
IOL SELECTION (INCLUDING IRIS CLAW)

09.36 Prof. Mats Lundstrom. *Sweden*
THE BENEFITS OF RECORDING OUTCOMES

09.48 Dr. Peter Barry. *Ireland*
ENDOPHTHALMITIS PREVENTION IN CATARACT SURGERY AND INTRAVITREAL INJECTIONS

10.00-10.30 Discussion
10.30-11.00 Coffee Break

11.00 Prof. Camille Budo. *Belgium*
WHAT TO DO IN THE PRESENCE OF ANTERIOR AND/OR POSTERIOR CAPSULE TEAR, TO PREVENT A DROPPED NUCLEUS (VIDEO)

11.12 Dr. Peter Barry. *Ireland*
MANAGING THE TORN CAPSULE VITREOUS LOSS AND DROPPED NUCLEUS

11.24 Dr. Richard Packard. *UK*
CATARACT SURGERY IN HIGH MYOPIC AND POST VITRECTOMY EYES

11.36 Dr. Bekir Sitki Aslan. *Turkey*
SPONTANEOUS LATE IN THE BAG IOL DISLOCATION AND ITS MANAGEMENT

11.48 Prof. Mats Lundstrom. *Sweden*
ESCRS FEMTO SECOND LASER- ASSISTED CATARACT SURGERY (FLACS) STUDY RESULTS
12.00-12.30 Discussion
12.30-13.00 Video case presentations
13.00-14.00 LUNCH

14.00-15:30 External eye diseases/Contact correction/Pediatric ophthalmology and Strabismus

Moderators: Prof. A. Stănila, Prof. N. Bobrova, Prof. N. Pashtaev, Prof. S. Iakymenko, Ass. Prof. A. Paduca

14.00 Prof. Adriana Stănilă, D.M. Stănilă. *Romania*
MEIBOMIAN GLAND DYSFUNCTIONS RELATED WITH OCULAR SURFACE PATHOLOGY

14.10 Dr. Bilba Rodica, MD Chiriac Vera, Toncoglaz Cristina, Tumuruc Irina. *Republic of Moldova*
CROSSLINKING UV™ – X EPI-ON

14.20 Prof. Adriana Stănilă, D.M. Stănilă. *Romania*
THE USE OF TCL IN THE PATHOLOGY OF OCULAR SURFACE

14.30 Prof. Pashtaev N. P., Pashtaev A.N. *Russia*
FEMTOSECOND LASER ASSISTED KERATOPLASTY FOR KERATOCONUS

14.40 Ilona Kaczmarek, Marta P. Wiącek, Agnieszka Chrząszcz, Piotr Jurowski, Wojciech Lubiński. *Poland*
EVALUATION OF AQUEOUS FLARE AFTER DESCEMET'S STRIPPING ENDOTHELIAL KERATOPLASTY AND PENETRATING KERATOPLASTY

14.50 Prof. M.Dvali., B.Sirbiladze., N.Tsintsadze., N.Jankarashvili. *Georgia*
ISCRS IN KERATOCONUS

15.10 Prof. M.Dvali., N.Tsintsadze., B.Sirbiladze., N. Sharazadishvili. *Georgia*
ICL vs LASIK

15.20 Dr. Ivanov V., Vrabii I. *Republic of Moldova*
CLINICAL RESULTS OF EXCIMER LASER CORRECTION FOR THE CORRECTION OF INDUCED AMETROPIA AFTER PENETRATING KERATOPLASTY

15.30 Prof. Cușnir Valeriu, Ass. Prof. Dumbrăveanu Lilia, MD Lupan Valentina, Andronic Sergiu, Procopciuc Vitalie. *Republic of Moldova*
AMNIOTIC MEMBRANE TRANSPLANTATION IN OPHTHALMOLOGY: INDICATIONS AND TECHNIQUES

15.40 Prof. Iakymenko Stanislav. *Ukraine*
IMPLANTATION OF KERATOPROSTHESIS IN THE FILATOV INSTITUTE: LABORATION, STUDY AND RESULTS OF APPLICATION

15.50 Tronina S.A., Bobrova N.F. *Ukraine*
PEDIATRIC ORBITAL DERMOID CYSTS – CLINICAL STATE AND SURGICAL TREATMENT

16.00 Ass. Prof. Paduca Ala, Inga Sorbalo, Maria Iacubițchii. *Republic of Moldova*
THE SYMPTOM IS DIPLOPIA. BUT WHAT'S THE DIAGNOSIS? (CASE PRESENTATION)

16.10 Marta P. Wiącek, Monika Modrzejewska, Danuta Bobrowska – Snarska, Wojciech Lubiński, Marek Brzosko. *Poland*
EVALUATION OF THE OCULAR SURFACE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND SECONDARY ANTIPHOSPHOLIPID SYNDROME

Discussion

16.30-17.00 Coffee Break

17.00-18.30 VITREO&RETINA/Palace of the Republic
Moderators: Prof. F. Balta, Prof. P.Vassileva, Prof. M.Munteanu, Prof. V. Cusnir, Ass. Prof. A.Corduneanu

17.00 P.Sapundzhiev, Hr.Krasteva, Y.Kirilova, T.Hergeldzhieva, Prof. P.Vassileva. *Bulgaria*
TWO CASES OF ACUTE RETINAL NECROSIS (ARN)

17.10 Prof. Balta Florian. *Romania*
VITRECTOMY FOR PROLIFERATIVE DIABETIC RETINOPATY

17.20 Prof. Mihnea Munteanu, Cosmin Rosca, Horia T. Stanca. *Romania*
LASER-ASSISTED CATARACT SURGERY COMPLICATED WITH GIANT RETINAL TEAR AND SUBRETINAL LENS FRAGMENT

17.30 Ass. Prof. Gh. Ivanov, S. Bulici, N. Vintea, I. Lisii. *Republic of Moldova*
LIVING WITH WAGNER SYNDROME: CLINICAL CASE REPORT

17.40 Gr.Lalov, T.Hergeldzhieva-Fileva, Prof. P.Vassileva. *Bulgaria*
RETINAL VEIN OCCLUSION- ASSOCIATION WITH SYSTEMIC DISEASES

17.50 Veronica Chisca, Ass. Prof. Angela Corduneanu, Prof. Stanislav Groppa, Rodica Sevciuc, Veronica Gherasim. *Republic of Moldova*
ASSOCIATION BETWEEN NEUROOPHTALMOLOGICAL AND NEUROLOGICAL CHANGES AT THE PATIENTS WITH DIABETIC RETINOPATHY

18.00 Prof. Scripnic Rimma. *Ukraine*
DRUG TREATMENT OF RETINA'S DISEASES

18.10 Prof. Cuşnir Valeriu, Andronic Sergiu, Cuşnir Vitalie, Cuşnir Valeriu jr. *Republic of Moldova*
THE OPTICAL COHERENCETOMOGRAPHY – METHOD OF CHOICE IN MACULAR EDEMA EARLY DIAGNOSIS

18.20 Ass. Prof. Ion Jeru. *Republic of Moldova*
SOME ETIOLOGICAL FACTORS OF SENILE CATARACT WITH SECONDARY GLAUCOMA

Discussion

19.30 GALA DINNER

<u>1 November, 2015</u>

11:00 Visit to Orheiul Vechi

WORLD MEDICINE OPHTHALMICS

"Better Vision for a Better Life"

WORLD MEDICINE OPHTHALMICS is a rapidly growing pharmaceutical company that is committed to providing patients, doctors, healthcare organizations and government with access to quality medicines.

The World Medicine company started its activity in **1998.** Today World Medicine is a group of companies, with its headquarters located in London, which includes the companies with the identical name in the United Kingdom, Greece, Bulgaria, Turkey, and other countries. The World Medicine group of companies is engaged in development, production,and sales of pharmaceutical products, and it is presented in more than **35 countries worldwide.**

MODERN PRODUCT FACILITY

The World Medicine Group factory is situated in Istanbul, Turkey.
Production facilities with potential annual output up to **70 million of unit** of different therapeutical forms.

HIGH QUALITY PRODUCTS

Our production complies with all international standards and has been certified by regulatory authorities of different countries. **(EU GMP, GDP, GSP, ISO 9001:2008, ISO 14001:2004)**

SUCCESSFUL STRATEGY IMPLEMENTATION

Key factors of success :

- high-quality patient centered portfolio
- highly professional sales and marketing teams
- customer oriented marketing

INNOVATIVE PORTFOLIO

WMO manufactures products that treat elevated intraocular pressure for people with **glaucoma;** products to treat eye and ear **infections;** and ophthalmic solutions to treat **inflammation** and pain associated with **ocular surgery.** We also manufacture eye and nasal **allergy** treatments, and over-the-counter **dry eye** relief and ocular **vitamins**

Our mission:
Providing products that help people see better and brighten their life.

World Medicine Ophthalmics Moldova
Chişinău str. Grigore Vieru 27
tel.: (+373 22) 92-41-92
fax. (+373 22) 22-46-59
e-mail: office@oftalmologie.md
web: www.oftalmologie.md

Head Office
23 The Kilns, Thaxted Road,
Saffron Walden ESSEX CB10 2UQ,
UNITED KINGDOM
tel.: +44 (0) 845 0 66 50 00
fax: +44 (0) 845 0 66 50 01
e-mail: info@wm-ophthalmics.com
web: www.wm-ophthalmics.com

LOW VISION

VISION 2020 AND WHO GLOBAL ACTION PLAN 2014-2019 TOWARDS UNIVERSAL EYE HEALTH

János Németh, Dorottya Szabó
Department of Ophthalmology, Semmelweis University, Budapest, Hungary

In May 2013 the 66th World Health Assembly approved the Global Action Plan (GAP) for the Prevention of Avoidable Blindness and Visual Impairment 2014-2019 - Towards Universal Eye Health (WHA66.4, http://www.who.int/blindness/actionplan). Its global target is to reduce the prevalence of avoidable visual impairment by 25% by 2019, and the actions are structured along three objectives: 1. to generate evidence on the magnitude and causes of visual impairment and use it to advocate increased commitment from countries, 2. to implement integrated national eye health policies, plans and programmes to enhance universal eye health, 3. to strengthen eye health with multisectoral engagement and effective partnerships.
IAPB-Europe "Towards Universal Eye Health" GAP Meeting was a great success in Vienna in June 2015 in connection with the SOE Congress. Presidents or representatives from National Societies of Ophthalmology participated as well as representatives from ICO, WHO, IAPB and SOE, and their further actions are necessary to fulfil the GAP requirements and targets in Europe and in their countries.
European region is in lack of reliable epidemiological data, as a result, Rapid Assessment of Avoidable Blindness (RAAB) surveys are needed to conduct. After the first survey in Moldova, the Hungarian RAAB study with Diabetic Retinopathy module (DR) has just finished.
The aim of IAPB Europe is to improve the coverage of eye health care and to prevent blindness across Europe. IAPB Europe focuses on two eye diseases - retinopathy of prematurity (ROP), diabetic retinopathy (DR) - and vision rehabilitation.
After the 1st Black Sea Regional ROP Workshop in June 2014 in Budapest, a regional session on ROP for the 18 SEEOS countries was held in October 2014 in Bucharest. Also national (Russian, Bulgarian, Romanian) ROP workshops were organized, and this possibility is open for other countries, as well. Last year, a Hungarian ROP case study was published in the World Sight Day Brochure. The main aims are to establish national ROP screening programs and fundus laser therapy.
Diabetic retinopathy teaching course in the Lions Ophthalmology Educational Center in Prague, partially supported by IAPB, was popular among young ophthalmologists. Implementation of DR telemedical screening programs and laser therapy is a highly recommended way of decreasing the prevalence of DR related visual impairment.

TOWARDS UNIVERSAL EYE HEALTH IN THE REPUBLIC OF MOLDOVA: A GLOBAL ACTION PLAN 2014-2019

Tatiana Ghidirimschi[1], Hans Bjorn Bakketeig[1,2], Larisa Spinei[3], Alexandru Ghidirimschi[4]
[1]Center "LOW VISION" Chișinău, Republic of Moldova; [2]Help Moldova Organization, Norway; [3]School of Public Health, State University of Medicine and Pharmacy "Nicolae Testemițanu", Republic of Moldova; [4]Moldova State University, Republic of Moldova

Introduction: The prevalence of low vision and vision impairment was found to be 19.5% in people aged over 50 years in a Rapid Assessment of Avoidable Blindness and Diabetic Retinopathy (RAAB+DR) survey conducted in Moldova in 2012.[1] This means that there are approximately 169 000 people over the age of 50 years who have some form of low vision. The major causes of

blindness and severe vision impairment are cataracts, glaucoma, age related macular degeneration and other posterior segment causes. The main causes of moderate visual impairment are refractive errors followed by cataract. Diabetic retinopathy was found in over half of the people aged 50 years and over who had diabetes, with 14.6% suffering from sight threatening retinopathy. These findings highlight the need to develop a national action plan on eye health care.

Aim: To develop a National Eye Health Plan for Moldova.

Method: A National Eye Health Plan based on the Global Eye Health Action Plan[2] adopted by the Sixty-sixth World Health Assembly will be developed for Moldova to address the causes of avoidable blindness and rehabilitation needs of those with permanent or untreatable vision impairment.

Discussion: The goal of Global Action Plan is to reduce avoidable visual impairment as a global public health problem and secure access to rehabilitation services for the visually impaired. The Moldovan National Eye Health Plan will incorporate strategies in line with the Global Action Plan focusing on comprehensive services that include treatment, health promotion, prevention and rehabilitation services. Integration of eye care and rehabilitation services into the health system with proper development of human resources, financing, medicines and technologies will be a feature of the Eye Health Plan. This will also include strategies to improve access to eye care and rehabilitation services for all. The National Eye Care Plan will contribute to reducing visual impairment and ensuring equitable and affordable access for all to good quality eye care and rehabilitation services in Moldova.

RETINOPATHY OF PREMATURITY. 10 YEARS OF EXPERIENCE.

Magdei Corina d.s.m., Magdei Eudochia,Verajan Victoria, Grigoria Anastasia, Cernei Alexandra, Pînzari Luidmila,

INSP Mother and Child Health Care Institute

VISION2020 is a global initiative of the International Agency for the Prevention of Blindness, whose mission is the elimination of avoidable blindness by the year 2020. The key elements of VISION2020 are a) strategies for the control of the major blinding eye diseases (cataract, trachoma, onchocerciasis, blindness in children, refractive errors, and low vision), b) infrastructure development and supplying and maintaining equipment, c) human resource development, and d) community participation. Blindness from ROP is recognized as a priority for the whole world. Globally there are estimated to be 60,000 children who are blind from ROP. Retinopathy of prematurity (ROP) is a potentially avoidable cause of blindness in children. ROP is an actual problem for perinathologists and ophthalmologists concerning the progress in neonatology for the past years.

The first steps in the ROP screening and diagnose were made as a part of the project „Avoidance of possible blindness in children" sponsored by WHO and LIONs CLUB in 2005. There were prepared specialists in ROP. Necessary equipment was bought.

In 2013 the team from Moldova participated at the ROP workshop for Black Sea region under the guide of the International Agency for the Prevention of Blindness (IAPB). During this visits have been reported preliminary datas and directions of activity in the field of ROP.

In 2014 grateful to the support of Kinder Sollen Sehen (Germania) organization the ophthalmology service from Moldova that deals with ROP has been totally assured with the necessary equipment. There were organized meetings with experts from Lithuania and neonathologists regarding ROP issues.

In 2015 was approved the National Protocol in ROP. Two of our specialists has undergone a training in ROP diagnose and treatment in Turkey (with the support of TIKA-Turkish Cooperation

and Coordination Agency). Informative materials have been published for parents with ROP children.

Statistics show that in the perinatologic center of the Mother and Child Health Care Institute in 2014 were delivered 942 children, 442 of them new-borns premature, mature- 500. 90% of all from the Follow Up Center undergone an ophthalmologic control.

Implementation in the RM of the ophthalmologic screening and monitoring, the increase of the premature children; an increased attention for the risk factors for the ROP development – are the main directions in the blindness prevention in children. Primary prophylaxis and screening as a nurse is organized by meetings for parents regarding the birth of a premature baby, the necessity for the pregnant woman observation by the family doctor, gynecologist, and treatment of the chronical sources of infection.

The interaction criteria of the medical assistance are compulsory: gynecologists, perinatologists, nurses that outline the risk factors for premature birth and direct this woman to the ophthalmopediatrician. Also they select the ROP risk factor pregnant woman, children with acute stages of ROP and the ones that need Laser or crio treatment.

Conclusions: The implementation of a screening system and monitoring of ROP in Moldova has been possible as a support from the European partners as a true example of co-operation.

The aim for the future is to create the database for the premature babies with their retina photos.

CORNEA AND EXTERNAL EYE

MEDIUM TERM RESULTS OF PENETRATING KERATOPLASTY

Dorin Chiselita, Anisia-Iuliana Alexa, Teodor Stefanache, Madalina-Adriana Chihaia
Iasi, Romania

Purpose: This is a retrospective evaluation of penetrating keratoplasty for optical purpose in the Eye Clinic of the Clinical Emergency Hospital "St. Spiridon "Iasi.
Methods: The study evaluated 51 eyes of 50 patients, mean age of patients was 50.8 years. Indications for penetrating keratoplasty were: stage IV keratoconus (31.3%), chronic corneal edema (29.4%), corneal dystrophies (17.6%), corneal leukoma (17.6%) and irreversible graft rejection (3.9%). Penetrating keratoplasties were performed by the same surgeon. Postoperatively, patients were evaluated regularly through a comprehensive eye exam. Mean follow-up was 22.7 months post-keratoplasty (SD ± 20.8)
Results: During follow-up 73% did not show any postoperative complication, while 17% of cases showed an increased intraocular pressure; 10% developed acute graft rejection. Survival without acute rejection of the transplant is 95% at one year and 93% at two years. Aphakic or pseudophakic cases have higher risk of developing high intraocular pressure compared to phakic eye (41% vs 3%). Among patients where the keratoplasty was performed on phakic eye (28), only one developed secondary cataract. Glaucoma before the intervention is a risk factor for increased intraocular pressure unlike patients without glaucoma. Also, performing penetrating keratoplasty combined with another procedure in the same operation increases the risk of ocular hypertension in 32% versus 18% for keratoplasty alone. Secondary astigmatism 3 months or more after keratoplasty recorded values between -3.5 and + 5 D. 30 patients(63.8%) had a final visual acuity between 0.3-0.9 Snellen line. 27.4% of patients had a better visual acuity compared to fellow eye.
Conclusion: Penetrating keratoplasty results are influenced by preoperative status, type of surgery and also by rigorous long-term follow-up of patients to prevent and address complications as soon as possible.

FEMTOSECOND LASER ASSISTED KERATOPLASTY FOR KERATOCONUS

Prof. Pashtaev N. P. , Pashtaev A.N.
The S. Fyodorov Eye Microsurgery Federal State Institution, Cheboksary Branch, Russia
Head of Department of Ophthalmology and Otolaryngology, Chuvash State University, Russia

Purpose: To evaluate the results of treatment of keratoconus of different stages by femtosecond laser assisted procedure.
Methods: Femtosecond laser (AMO Intralase 60kHz) assisted penetrating keratoplasty (FS-PKP) with “combined” trephination profile was performed for 115 eyes (main group), and traditional penetrating keratoplasty - for 112 eyes (control group) with stage 4 keratoconus. The 2 groups were compared in terms of UCVA, BSCVA, postoperative astigmatism and endothelial cell (EC) loss. An original technique of femtosecond laser-assisted deep anterior lamellar keratoplasty (FS-DALK) with optimized cutting algorithm allowing to result “mushroom-shape” transplant and recipient’s bed edge and avoid using sharp instruments for making big-bubble, was performed for 34 eyes (main group), and manual deep anterior lamellar keratoplasty (DALK) – for 35 eyes (control group) with stages 2 and 3 of keratoconus. The 2 groups were compared in terms of UCVA, BSCVA, postoperative astigmatism, EC loss, central graft thickness and residual recipient’s tissue thickness. Also, corneal hysteresis (CH) and corneal resistance factor (CFR) were

evaluated before and after surgery. Roughness of bared DM was measured by atomic force microscopy (AFM) comparative to the roughness of the cut, made by mechanical microkeratome (Moria II).

Results: At 12 months observation after penetrating keratoplasty UCVA was 0.37±0.18 and 0.21±0.12 (p=0.023), BSCVA was 0.81±0.15 and 0.47±0.17 (p=0.01) in main and control group, respectively. Postoperative astigmatism was equal to 3.25 ± 1.2^{D} in main group and was higher in the control one – 4.5 ± 1.3^{D} (p=0.024). EC loss was equal in two groups – 18.9% (main) and 21.4% (control, p>0.05). After the lamellar procedure at 6 months observation UCVA was 0.21±0.17 and 0.12±0.13 (p=0.031), BSCVA was 0.54±0.15, and 0.42±0.14 (p=0.023) in main and control group, respectively. At 12 months UCVA was 0.29±0.19 and 0.26±0.2 (p>0.05), BSCVA was 0.66±0.15 and 0.54±0.18 (p>0.05), respectively. Part of patients, achieved BSCVA≥0.5 was 97.1% in the main group and 71.4% in the control one (p=0.013). Postoperative astigmatism was equal to 3.7±1.4 D in the main group and was higher (p=0.04) in the control one (4.8±1.9 D). EC loss (7.4 and 6.1%, p>0.05), central graft thickness (506±20 and 521±28 um, p>0.05) and residual recipient's tissue thickness (25±4 and 25±5 um, p>0.05) were comparable. CH and CRF had improved from 6.6±1 and 4.8±1.1 mm Hg to 9.9±0.7 and 9.3±0.8 mm Hg (p<0.001) in the main group. AFM showed roughness mean square (RMS) of DM=92±6.3 nm, comparable to RMS of microkeratome-assisted cut of 120±19 nm (p>0.05).

Conclusions: Introducing femtosecond laser techniques resulted in faster visual recovery, lesser postoperative astigmatism and lager part of patients, achieved BSCVA≥0.5, comparative to traditional methods.

Key words: keratoconus, femtosecond laser, penetrating keratoplasty, deep anterior lamellar keratoplasty, big-bubble technique, atomic-force microscopy.

CROSSLINKING UV™ – X EPI-ON

Bilba Rodica, Chiriac Vera, Toncoglaz Cristina, Tumuruc Irina, Coșulă Cristina
Medical Centre "Oculus prim", Chisinau

Keratoconus is a bilateral noninflammatory conelike ectasia of the cornea. Corneal Collagen Cross linking with riboflavin (UV^{TM}–X) strengthens the intrinsic biomechanical property of the cornea using ultraviolet A (UVA) and riboflavin 0.1%.

Aim: To evaluate the clinical usefulness of crosslinking – UV^{TM} for stopping the progression of keratoconus.

Method: Clinical prospective study, that included 82 eyes with moderate or advanced progressive keratoconus (K: 48 – 72 D). Two techniques of treatment were performed: in 42 eyes - UV^{TM}-X epi-off and in 40 eyes - UV^{TM}-X epi-on. The first is accomplished with central corneal abrasion, riboflavin drops and exposure to UVA (365 nm, 3 mW/cm2) at 5 cm distance for 30 minutes. UV^{TM}–X epi-on is performed without desepitalization of the cornea with balanced solution of riboflavin instilled for 20 minutes and UVA exposure (365 nm, 9mW/cm2) for 10 minutes. Postoperative examinations were carried over the course of 1 day, 1 week, 1, 3 and 6 months, including visual acuity, biomicroscopy, corneal topography, pachymetry, refractometry, keratometry.

Result: In all treated eyes, the progression of keratoconus was stopped. In 42 eyes (51,2 %) visual acuity was improved. The priority of UV^{TM}–X epi-on tehnique results in absence of pain syndrome and fast postoperative recovery.

Conclusion: Crosslinking – UV™-X is a way for stopping the progression of keratoconus.

ISCRS IN KERATOCONUS

M.Dvali., B.Sirbiladze., N.Tsintsadze., N.Jankarashvili
Tbilisi State Medical University, Eye Clinic "Akhali Mzera", Tbilisi, Georgia

Purpose: To evaluate refractive effects of ISCR implantation in keratoconus patients.
Methods: The 1583 keratoconic eyes of 921 patients keratoconus (II-III st) were treated with ISCR implantation with one or two segments according the special nomograms. Pre and post operative examination included Snellen uncorrected distance visual acuity (UDVA) and CDVA, manifest refraction, slitlamp biomicroscopy, fundus evaluation, ultrasound pachymetry, and corneal topography and aberrometry Orbscan system.
Results: Pre Op: UCVA – 0.12 $\pm$ 0.07; BCVA – 0.3 $\pm$ 0.2; K-readers: 53.1 $\pm$ 3.7 (steep meridian), 46.8 $\pm$ 3.7 (flat meridian); PBFS – 54.75 $\pm$ 1.9; SE – 7.2 $\pm$ 3.5; astigmatism 6.1 $\pm$ 1.5. Post Op: UCVA – 0.7 $\pm$ 0.2; BCVA – 0.7 $\pm$ 0.2; K-readers: 45.9 $\pm$ 3.7 (steep meridian), 42.8 $\pm$ 2.7 (flat meridian); PBFS – 51.0 $\pm$ 2.1; SE – 2.0 $\pm$ 1.5; astigmatism 2.5 $\pm$ 0.7.
Conclusion: ISCS implantation improves all main parameters of corneal topography; it flattens central optical zone, which results in increase of UCVA and remained stable over the follow-up period. The reduction in segment diameter seems to be of great importance to better and effective control of astigmatism. However, if the segments are nearer from the pupil margins, visual quality can be adversely affected by scattered rays of light reaching the retina inducing blur and glares. Therefore, a compromise between ring effect and visual quality should be found. Having 4 arc-length options (90, 120, 160 and 210 degrees) makes ISCRs to be more flexible in surgical planning to achieve the better refractive outcomes.

OUTCOMES OF STANDARD CORNEAL CROSS-LINKING FOR PROGRESSIVE KERATOCONUS

Vrabii I., Bendelic E.
Medical Center „Eye Microsurgery" Kishinev, Moldova; Department of Ophthalmology, State University of Medicine and Pharmacy "Nicolae Testemitanu", Kishinev, Moldova

Purpose: Evaluating the clinical results of standard collagen cross-linking (CXL) in patients with progressive keratoconus.
Methods: This prospective study comprised 80 eyes of 53 patients with progressive keratoconus. All eyes were treated by standard CXL with 5 year of follow-up. All patients underwent complete ophthalmologic testing that included pre- and postoperative uncorrected visual acuity, corrected visual acuity, spherical error, spherical equivalent, corneal astigmatism, simulated maximum, minimum, and average keratometry, pachymetry, endothelial cell density and Ocular Response Analyzer (ORA)**.** To evaluate the visibility and the depth of the stromal demarcation line after CXL was using anterior segment optical coherence tomography (ASOCT). The solution used for standard CXL comprised riboflavin 0.1% and dextran 20.0%.). Iso-osmolar riboflavin solution was used for corneas with thinnest pachymetry above 400 mm (after deepithelization), hypo-osmolar solution was used for thinner corneas (less than 400 after deepithelization). Ultraviolet-A treatment was performed with UV-X System at 3 mW/cm^2 for 30 minutes.
Results: Mean age was 35.5±6.9 years (range: 15–37 years). Mean preoperative UDVA was 0,4 (SD ±0.15). UDVA improvement observed at the 3-month postoperative time and became statistically significant at the 12-month. All topographic parameters (K_{min}, K_{max}, and mean K) showed a statistically significant improvement (reduction in steepest keratometry) at 12 months post-surgery. Topographic indices (SAI and SRI) showed minimal improvement. Mean depth of the corneal stromal demarcation line after CXL was 318,5±15,2 mm. Stromal demarcation line was visible for 85% of the crosslinked corneas. Pachymetry at the thinnest point decreased significantly

(488±45 preoperatively, to 431±37 mm at 5 years). ORA measurements showed no significant differences in corneal hysteresis (CH) and corneal resistance factor (CRF) before and 1 year after treatment.

Conclusion: These results demonstrate that traditional CXL is effective and safe option in stabilizing the progression of keratoconus. There was no intra- or postoperative complications except temporary corneal epithelial defect and haze. Corneal endothelial count remained stable without significant decrease. ASOCT showed the collagen cross linking effects in the stroma. There were no cases of progression after 5 years of epi-off CXL.

CLINICAL RESULTS OF EXCIMER LASER CORRECTION FOR THE CORRECTION OF INDUCED AMETROPIA AFTER PENETRATING KERATOPLASTY

Ivanov V., Vrabii I.
Medical Center „Eye Microsurgery" Kishinev, Moldova

Purpose: To demonstrate the main technological approaches and clinical results of excimer laser correction of induced astigmatism after penetrating keratoplasty.

Methods: The study includes of 6 patients (7 eyes) aged 23 - 35 years, after penetrating keratoplasty due to keratoconus, with a high degree of postoperative astigmatism and irregularity of the corneal surface. All patients underwent standard preoperative examination, including endothelial cells density and topographic analysis of anterior and posterior surface of the cornea (Tomey TMS 5, Japan). Patients were followed up for two years after keratoplasty. Was performed one-step LASIK using installation "Microscan Vizum".

Superficial corneal flap from 70 to 100 microns thickness was performed with a microkeratome ML7 (Med-Logics, USA). Terms of follow-up was between 3 to 10 years after Lasik.

Results: The results show the benefits of refractive excimer laser intervention after penetrating keratoplasty, confirms the significant topographic improvements of the anterior surface of the cornea. It was obtained high uncorrected visual acuity after refractive surgery, in comparison with the preoperative maximal corrected visual acuity. Years of dynamic analysis of corneal topography indicates a long-term stability of refraction after Lasik.

Conclusion: Analysis of clinical - functional results of the correction of refractive errors by LASIK, using the "Microscan Vizum" showed high efficacy and safety, as well as high predictability of excimer laser refractive operations. This technology demonstrates the usefulness of refractive surgery in patients after penetrating keratoplasty with severe refractive errors combined with anisometropia, which can significantly improve visual function and efficiency of spectacle correction, contributing to more successful medical-social and professional rehabilitation.

ICL vs LASIK

M.Dvali., N.Tsintsadze., B.Sirbiladze., N. Sharazadishvili
Tbilisi State Medical University, Eye Clinic "Akhali Mzera" , Tbilisi, Georgia

Purpose: To compare the findings of moderate and high myopia correction using excimer laser vs ICL.

Methods: The 108 eyes of 57 patients were treated with ICL implantation and 2688 eyes of 1376 patients were undergone LASIK to correct low and high myopia. Sperical equivalent (SE) from 5.0 to 18.0 D, astigmatism (A) from 0.5 to 6.0 D in ICL cases and (SE) from 3.5 to 12.0 D, astigmatism (A) from 0.5 to 6.0 D in Lasik cases.

Results: In every case Post Op UCVA was 20/40 or more. In 3% the loss of 2 lines of acuity was observed in LASIK group. VA lost by the two line. UCVA was higher in ICL cases. UCVA 20/20/

was achieved in 78.9% with ICL and in 63.4% with LASIK correction. ($p<0.001$). No serious complications were observed.

Conclusion: Phakic ICL implantation is a good alternative of LASIK for high myopia correction. It has It has high capacity and characterized by a low degree of high order aberrations that resulted in high quality of visual acuity. Moreover the procedure is reversible if necessary.

ETIOSURGERY OF TOTAL POST-BURN LIMBAL DEFICIENCY BY ALLOGENEIC LIMB TRANSPLANTATION

Kiselev A., Zabolotniy A., Sakhnov S.

FSBI «The Academician S.N. Fyodorov IRTC "Eye Microsurgery" of the Minzdrava of Russia the Krasnodar Branch; Kuban State Medical University of the Ministry of the Minzdrava of Russia; Russian Federation

Purpose: Analysis of results of allolimbal fragments transportation, conserved by normothermia within 21-28 days, in post-burn corneal leukoma and recurrent pterygiums.

Methods: Allolimbal fragments transplantation, conserved by normothermia, was performed in 16 eyes, 6 eyes were with post-burn corneal leukoma, and was combined with penetrating keratoplasty. In 10 eyes with recurrent pterygiums was performed allolimbal transplantation, in which on the limb area within the dissected body of the pterygium were fitted limbal transplants and fixed by interrupted sutures. Limbus allotransplantants conservation was performed in the modified environment DMEM/F12 with glutamine, insulin, dexamethasone, embryonal serum, HEPES and antibiotic-antimycotics composition in terms of CO_2-incubator at 37° C, 95% of humidity and 5% of CO_2, and for 21-28 days.

Results: After keratoplasty in the post-burn corneal leukomas in the early postoperative period the transplantant epithelialization was observed in the epithelial graft for 7-14 days, due to the limbus transplants epithelium. Within 6 months after the surgery, corneal transplants has been remained transparent. After allolimbal transplantation any relapses in patients with recurrent pterygiums was not observed, patients` observation has been currently continuing. Conservation of limbus allotranslantants allows significantly increase the number and activity MSC-like limbus cells and significantly reduce the concentrations of histocompatibility antigens in transplantants, that allows not to use immunosuppressive therapy in the postoperative period.

Conclusions: Combined performing of penetrating keratoplasty and allolimbal fragments transplantation, conserved by normothermia within 21-28 days, significantly increases the percent of corneal transparent retention. Allolimbal fragments transplantation, conserved by normothermia within 21-28 days, in recurrent pterygium - pathogenetically reasonable treatment method, which doesn't require immunosuppressive therapy. Eliminating sectoral limbus deficiency, it creates a barrier to the growth of the conjunctiva.

AMNIOTIC MEMBRANE TRANSPLANTATION IN OPHTHALMOLOGY: INDICATIONS AND TECHNIQUES

Cușnir Valeriu, Dumbrăveanu Lilia, Lupan Valentina, Andronic Sergiu, Procopciuc Vitalie
MCH "Saint Trinity", Chișinău, Republic of Moldova

Introduction: The human amniotic membrane (HAM) has been proved to possess a multitude of beneficial effects - stimulation of epithelialization, antiangiogenic, antibacterial and antiinflamatory effects, which can be very useful in many ophthalmological indications, such as corneal trophic ulcers resistant to medication and some cases of ocular surface destruction. Besides evaluating the efficiency of the HAM transplantation in this paper, we tried to describe our experience with amniotic membrane in the treatment of ocular surface abnormalities.
Purpose and objectives: To introduce the HAM transplantation indications in ophtalmology, to present the methods an techniques of HAM aplication on the human eye, to describe our experience with the amniotic membrane and to analyse the transplantation outcomes in patients with corneal ulcers of diverse etiology.
Materials and methods:19 patients were included in the study. All of them underwent HAM transplantation from December 2014 to March 2015, at the MCH „St. Trinity". The patients presented corneal ulcers of diverse complexity and etiology and were distributed in 3 main categories: group A (n=14), which included patients with corneal erosions in dry eye syndrome (n=5), viral keratitis (n=6), persistent epithelial defects after corneal abscess (n=2) and chemical burns (n=1); group B (n=4), which included patients with severe stromal thinning and iminent corneal perforation; group C (n=1), with one case of symblepharon and extensive corneo-conjunctival adhesions. The HAM was prepared from a fresh placenta of a seronegative pregnant woman and stored at -80°C. In all cases the amniotic membrane was applied on the ocular surface using the „patch" technique only.
Results: The cornea regenerated satisfactory in 11 patients out of 14 in group A, but the epithelial defect recurred in 3 of these cases. In the second group the transplantation was less effective - 2 patients out of 4 needed further tectonic corneal graft and 1 penetrant keratoplasty was performed. The HAM transplantation showed good results in symblepharon surgery, facilitating epithelialization and preventing corneo-conjunctival adhesions in the group C.
Conclusions: The HAM transplantation proved efficient in facilitating corneal healing and regeneration in patients with persistent epithelial defects, as well as preventing corneo-conjunctival adhesions following symblepharon surgery. Nevertheless, in some cases, further surgery was needed for ocular surface reconstruction. The HAM transplantation wasn't effective enough to prevent the tectonic corneal graft if severe stromal thinning and impending corneal perforation were involved.

EXCIMER LASER REFRACTIVE CORRECTION AFTER RETINAL DETACHMENT SURGERY

Vrabii I., Bendelic E.
Medical Center „Eye Microsurgery" Kishinev, Moldova; Department of Ophthalmology, State University of Medicine and Pharmacy "Nicolae Testemitanu", Kishinev, Moldova

Purpose: To evaluate the efficacy and safety of laser epithelial keratomileusis (LASEK) for correction of myopic refractive errors in eyes after scleral buckling surgery of rhegmatogenous retinal detachment (RRD).
Methods: In a prospective, non-comparative study, six eyes of 6 patients who had a myopic refractive error after retinal detachment surgery underwent LASEK surgery according to the standard protocol. Laser epithelial keratomileusis was performed using Microscan Visum 500 Hz

excimer laser system. Uncorrected visual acuity (UCVA), best corrected visual acuity (BCVA), refraction, fundus evaluation and topographical changes were evaluated before and 1, 3, 6 and 12 months after surgery.
Results: LASEK was performed successfully in all patients. The mean spherical equivalent before surgery was – 4.3 (SD 0.5). The postoperative refraction was within +/-1.0 diopter of the intended correction in all cases. The uncorrected visual acuity improved in all the eyes and the best corrected visual acuity improved or remained same in all the eyes. There was no retinal complication after LASEK.
Conclusion: LASEK may be considered for treatment of myopic refractive errors in eyes that have had previous surgery for retinal detachment. However, predictability may be worse than generally reported in eyes with no previous scleral buckling surgery.

IMPLANTATION OF KERATOPROSTHESIS IN THE FILATOV INSTITUTE: ELABORATION, STUDY AND RESULTS OF APPLICATION

Prof. Iakymenko Stanislav
State Institution «The Filatov Institute of Eye Diseases and Tissue Therapy of the National Academy of Medical Sciences of Ukraine»

Purpose: We perform keratoprosthesis to restore vision in patients with severe leucomas, unsuitable for optical corneal grafting. The problem of keratoprosthesis is being worked out in the Filatov Institute since 1966. The aim of the study was to analyse results of our methods of keratoprosthesis.
Methods: We have developed new constructions of keratoprostheses, new methods of operations as well as different ways of leucoma strengthening during this period. Complications associated with keratoprosthesis were studied; methods of their prevention and treatment were worked out. Keratoprosthesis according to the developed techniques has been performed in 1060 eyes of 1040 patients with severe leucomas of different aetiology: burns, 725 eyes (68.4%); trauma, 120 eyes (11.3%); keratitis and ocular pemphigoid, 108 eyes (10.2%); and bullous keratopathy, 107 eyes (10.1%). Visual acuity before keratoprosthesis consisted of light perception in 962 eyes (92%), and 98 eyes (8%) had minimal visual acuity (1/200–1/50). Both eyes were blind (visual acuity less than 1/200) in 955 patients (91.8%). Age of patients varied from 10 to 80 years. Period of blindness varied from 1 to 52 years.
Results: As a result of keratoprosthesis, visual acuity of ≥1/200 was restored in 1023 of 1060 eyes (96.5%). Visual acuity of 20/200–20/20 was achieved in 716 eyes (67.5%). At the last follow-up visit visual acuity of ≥1/200 was preserved in 806 eyes (76%), visual acuity of 20/200–20/20 was measured in 583 of 1060 eyes (55%) and good keratoprosthesis fixation in the cornea was achieved in 986 of 1060 eyes (93%). The minimal follow-up was 12 months (range, 12 months to37 years, median 5 years). The best results were obtained using our “universal separable” construction of keratoprostheses (1978), “two-stage method” of the operation (1974) with application of combined methods of superficial and intralamellar leucoma strengthening using patient’s oral mucosa and ear cartilage in vascularised leucomas or intralamellar corneal graft (posterior stroma and Descemet’s membrane) in non-vascularised leucomas.
Conclusions: Our technique of keratoprosthesis is an effective method to restore vision in patients with leucomas unsuitable for optical corneal grafting. This is our solution of keratoprosthesis problem at present.

SCLERAL LENSES IN THE MANAGEMENT OF DIFFERENT DISEASES (CASE STUDIES)

Bilba Rodica, Pavlovschi Ecaterina
Medical Centre "Oculus Prim", Chisinau

Scleral lenses are large-diameter rigid gas permeable lenses. They can range from 14 mm to over 20 mm in diameter. Scleral lenses functionally replace the irregular cornea with a perfectly smooth optical surface to correct vision problems caused by keratoconus and other corneal irregularities.
Aim: of the study is to demonstrate the benefit of the scleral lenses in the management of different diseases (case studies), based on the results provided by the subjective & objective findings and corneal topography where was possible.
Method: The authors present clinical cases of 7 patients, aged between 25-59 years old, who came to the Medical Center "Oculus Prim" with different complaints as: gradual decrease of the visual acuity (VA) or other eye problems.
In some cases at the corneal topography were detected different complex deformation of the cornea.
Within the center were chosen chosen the suitable scleral lenses.
Result: Several types of corneal abnormality as keratoconus, pellucid corneal degeneration, severe astigmatism, condition after CrossLinking, corneal dystrophy were managed successfully with modern scleral lenses. The main indication was optical correction of an irregular corneal surface. Satisfactory clinical performance meant that all the patients could continue to wear their scleral lenses.
Conclusion: Scleral contact lens represents a promising alternative in contact lens treatment for corneal problems considered to be difficult to fit with more traditional rigid lenses.

EVALUATION OF AQUEOUS FLARE AFTER DESCEMET'S STRIPPING ENDOTHELIAL KERATOPLASTY AND PENETRATING KERATOPLASTY

Ilona Kaczmarek[1], Marta P. Wiącek[2], Agnieszka Chrząszcz[1], Piotr Jurowski[1], Wojciech Lubiński[2]
[1]*Institute of Ophthalmology and Vision Rehabilitation, Medical University of Lodz, Poland*
Head of The Department: Piotr Jurowski, MD, PhD, Prof Assistant
[2]*Department of Ophthalmology, Pomeranian Medical University, Szczecin, Poland*
Head of The Department: Wojciech Lubiński, MD, PhD, FEBO

Purpose: Evaluation of aqueous flare in patients after Descemet's Stripping Endothelial Keratoplasty (DSEK) and Penetrating Keratoplasty (PK) performed of various indications.
Material and methods: In a prospective study 17 eyes in 16 patients were examined. First group consisted of 8 eyes after DSEK, second: 9 eyes after PK. The first procedure was performed of Fuch's dystrophy - 4 eyes, bullous keratopathy – 4 eyes. The indications in the second were as follows: keratoconus – 2 eyes, corneal cicatrix without neovascularization – 3 eyes, endangering corneal perforation – 4 eyes. Examined group mean age was respectively 67 and 69 years. The overall examining time was six months after the surgery. In the paperaqueous flare was evaluated in the anterior chamber in 1st, 3rd and 6th month after keratoplasty in FM-600 Laser Flare Kowa. Abovementioned device function is based on emission and detection of light produced by diode laser. Keratoplasty was performed in general (No 9) or in local peribulbar (No 8) anaesthesia.
Results: Mean aqueous flarein 1st, 3rd, and 6th month after keratoplasty is significantly lower after DSEK (14,46 +/- 4,70 ph/ms; 10,64 +/- 2,91 ph/ms; 5,98 +/- 2,53 ph/ms) in comparison with PK (18,50 +/- 5,82 ph/ms; 15,04 +/- 6,38 ph/ms; 10,68 +/- 3,83 ph/ms). In 6 months observation the mean flare value in DSEK was decreased twice in comparison with PK. Considering indication for

keratoplasty mean flare measurements were respectively in 1st, 3rd and 6th month for first group: Fuchs' dystrophy: 11,85 +/- 5,46 ph/ms; 8,28 +/- 1,80 ph/ms; 4,93 +/- 0,95 ph/ms; bullous keratopathy: 17,08 +/- 1,89 ph/ms; 13,00 +/- 1,27 ph/ms; 7,03 +/- 3,32 ph/ms. In second group respectively: keratoconus: 15,15 +/- 1,34 ph/ms; 11,95 +/- 0,49 ph/ms; 11,25 +/- 0,64 ph/ms; corneal cicatrix without neovascularization: 16,40 +/- 9,27 ph/ms; 12,13 +/- 9,85 ph/ms; 6,87 +/- 4,20 ph/ms; endangering corneal perforation: 21,75 +/- 2,54 ph/ms; 18,78 +/- 3,21 ph/ms; 13,25 +/- 1,92 ph/ms. In the analysis of indications for keratoplasty the lowest mean aqueous flare in 1st, 3rd, and 6th month after procedure was observed in the Fuchs' dystrophy. In endangering corneal perforation mean flare values were the highest.

Conclusions: Our results indirectly indicate that in examined patients after DSEK post-operative inflammatory reaction is lower than in PK. Furthermore flare values might depend on the indications for keratoplasty. The study was performed in group with various indications for keraoplasty. Further studies including protein concentration in AH after DSEK and PK performed in equal indications are needed.

THE USE OF TCL IN THE PATHOLOGY OF OCULAR SURFACE

Adriana Stănilă, D.M. Stănilă

The Clinical Department of Ophthalmology, The Research Center of the Ocular Surface - "Lucian Blaga" University, The Faculty of Medicine, SIBIU, ROMANIA

Therapeutic contact lenses (TCL) are special contact lenses used for the treatment of ocular surface diseases.

The aim of this study is to show our experience in using TCL in different diseases of ocular surface.

We used TCL in the treatment of:

- **Medical diseases:**

Conjunctival diseases:

Ocular pemphigoid, Stevens Johnson syndrome

Corneal diseases:

- epithelial-superficial punctate keratitis, filamentary keratopathy, keratitis sicca, corneal abrasion, recurrent corneal erosion, corneo-conjunctival burns
- stromal: profound corneal sterile ulcerations;
- endothelial: aphakic/ pseudophakic bullous keratopathy, Fuchs' endothelial dystrophy

- **Surgical diseases:**

- small penetrating corneal wounds
- large corneal wounds without endoocular membrane issue until suture
- aphakic and pseudophakic bullous keratopathy;
- large filtration bulla after trabeculectomy with athalamia;
- pterigyum surgery.
- cataract surgery
- after photorefractive keratectomy for antialgic effect and restoration of binocularity

We used TCL for next purposes: pain relief, improving corneal re-epithelization, tectonic effect, permitting binocular vision

TCL are offering great benefits in ocular surface pathology.

Reducing pain, avoiding ocular patch, restoring binocularity, TCL improve the quality of life for our patient with ocular disorders.

MEIBOMIAN GLAND DYSFUNCTIONS RELATED WITH OCULAR SURFACE PATHOLOGY

Adriana Stănilă, D.M. Stănilă
The Clinical Department of Ophthalmology, The Research Center of the Ocular Surface - "Lucian Blaga" University; The Faculty of Medicine, Sibiu, Romania

Meibomian Glands are the sebum producting glands located in both, the upper and lower eyelids, in number about 25-30. The secretion forms the external layer of the tear film, which prevents the evaporation of the water from the tear film.
The Meibomian glands are modified sebaceous glands. Meibomian gland secretion decreases with age and in normal subjects only 45 % of them are active.
The aim of the paper is to bring to attention the correlation between MGD and the ocular surface disorders.
Meibomian gland dysfunction (MGD) is a condition of Meibomian gland obstruction and is frequently associated with many ocular diseases. We will present the pathology of ocular surface related with dysfunction of mebomian glands like, posterior blepharitis or meibomitis, chalasion, acnee rosacea, meibomian keratoconjunctivitis, evaporative dry eye syndrom, disconfort in contact lens wearers, ocular penphigoid etc.
MGD is a very frequent chronic condition in the general population, but yet often overlooked in ophthalmic practice with the result of an important number of patients who are not really cured and satisfied.
The patients with lid margin diseases should be always examined closely to evaluate connection with MGD, because complications of MGD are common and may involve severe ocular surface damage.

DIAGNOSTIC IMAGING OF DRY EYE AND TEAR FILM

MD, PhD, DSc, János Németh
Department of Ophthalmology, Semmelweis University, Budapest, Hungary

The ocular surface is a dynamic complex system restoring the high quality of the optical elements of the ocular surface, nourishing the conjunctiva and cornea, and providing lubrication for frequent blinking. In the last two decades, the tear film dynamics attained high interest due to its clinical importance, including corneal refractive surgery and the very common dry eye complaints, also in connection with working in front of a computer screen.
The diagnosis of the dry eye disease is developing fast and there are many new high tech imaging modalities for the examination of the anterior eye segment in this respect and there are many dynamic examination methods allowing to follow the quick changes in time e.g. in the tear film lipid layer thickness or in the surface irregularities of the outermost optical elements of the eye.
The lecture will show the methodology and clinical performance of these new dynamic imaging modalities and will demonstrate their scientific importance and possible application in the future everyday clinical practice.

EVALUATION OF THE OCULAR SURFACE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND SECONDARY ANTIPHOSPHOLIPID SYNDROME

Marta P. Wiącek[1], Monika Modrzejewska[1], Danuta Bobrowska – Snarska[2], Wojciech Lubiński[1], Marek Brzosko[2]

[1]Department of Ophthalmology, Pomeranian Medical University, Szczecin, Poland
al. Powstańców Wielkopolskich 72, 70-111 Szczecin
[2]Department of Rheumatology and Internal Diseases, Pomeranian Medical University, Szczecin, Poland

Purpose: We aimed to evaluate the impact of insulated systemic lupus erythematosus (SLE) with secondary antiphospholipid syndrome (APS) on ocular surface condition with particular emphasis on tears production disorders.

Material and methods: For the study, 82 women were enrolled – 44 with SLE (mean age: 44.07 years), 11 with SLE and APS (mean: 39.55 years), and 27 healthy controls (mean: 44.52 years). All women filled anonymous questionnaires with six questions referring to ocular symptoms, ophthalmologist's care, accompanying Sjöegren's syndrome, and disease course. The anterior segment condition was evaluated by slit lamp examination and Schirmer's II and tear break up tests were performed. Visual acuity and intraocular pressure were assessed by the Snellen Letter Chart and Pascal dynamic contour tonometry, respectively. Statistical analysis was performed in Statistica 12 Software; p-values <0.05 were considered statistically significant.

Results: None of the healthy individuals declared more than one ocular symptom; patients declared a mean number of 1.96 ocular symptoms. SLE and SLE with APS groups were not statistically significantly different. The mean age of diagnosis in patients declaring two or more symptoms was 37.83 years, while for one or less symptoms it was 29.17 years. The tear break up test, measured in seconds, in the right eye was 6.39 and 9.04 in the patient and healthy groups, respectively ($p<0.05$), and 5.61 and 8.19, respectively, in the left eye ($p<0.05$). Visual acuity in the SLE group was 0.96 for the right eye and 0.97 for left eye, while they were 1.2 and 1.14, respectively, in the control group. Cataract was found in patients at mean age 47.4 in right eye and 47.0 in left eye, and in healthy group 54.67 and 57.0, respectively.

Conclusions: Patients with SLE and APS complain of ocular symptoms more frequently than healthy individuals. Establishment of the diagnosis at an earlier age may result in decreased ocular ailments in those patients. Decreased quality of a tear film and lens translucency might influence visual acuity in patients with SLE and APS.

Rompharm Company

TRAVAPRESS
Travoprost 0,04 mg/ml

L-OPTIC
Levofloxacin 0,5 %

BRINZOPT
Brinzolamida 10mg/ml

KATARAX
Azapentacen 0,015 %

DUOPROST
Latanoprost 0,05 mg/ml
Timolol 5,0 mg/ml

Dorzopt
dorzolamidă 20 mg/ml

VIZOPTIN
Tetrizolina 0,5 mg/ml

DexaTobrom
Dexametazona 1 mg/ml
Tobramicina 3 mg/ml

Production Plant | Otopeni, Romania

50 Export Countries | 24 EU Countries | 30 partners

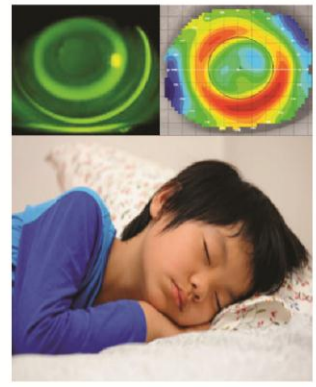
Branches | Moscow, Minsk, Almaty, Tbilisi, Baku, Erevan, Kiev

Republica Moldova, Chişinău, str. Alexandru cel Bun 108/1
tel.: +373 22 83 70 63 mob.: +373 602 111 60

Centrul Medical „Oculus Prim”, reprezentantul oficial şi exclusiv al companiei germane „Oculus” în Republica Moldova, este dotat cu echipamente de ultimă generaţie, ceea ce permite un diagnostic precis şi prescrierea tratamentului corect.

Oftalmologia este direcţia prioritară în activitatea Centrului Medical „Oculus Prim”, care a devenit o instituţie de referinţă în ceea ce priveşte abordarea tulburărilor de vedere.

La „Oculus Prim” pacienţii beneficiază de servicii oftalmologice specializate pentru copii şi adulţi:



- **metode exclusive de diagnostic** (H-testul) – examinarea nonverbală a acuităţii vizuale, tehnologia de ultimă generaţie în screening vizual PLUSOPTIX pentru copii începând cu vârsta de 3 luni, topografia corneană, pachimetria corneană, investigarea non-invazivă şi non-contact a calităţii şi cantităţii lacrimii, măsurarea tensiunii oculare non-contact, perimetria computerizată, ultrasonografia globului ocular;
- **tratament fizioterapeutic** – programul de tratament este elaborat în mod personalizat pentru fiecare pacient, cu utilizarea celor mai eficiente metode fizioterapeutice, inclusiv proceduri inovative, patentate de experţii „Oculus Prim”, unice atât în Rep. Moldova, cât şi în Europa;
- **terapia refractivă sau ortokeratologia** – o metodă modernă, neinvazivă, temporară, de corecţie a miopiei prin intermediul lentilelor de contact dure speciale, care oferă o acuitate vizuală de 100% pe un timp îndelungat (24 de ore şi mai mult), ca rezultat al aplicării pe globii oculari în timpul noptii, pentru 6-8 ore, fără a fi nevoie ulterior de o altă corecţie. Este una dintre cele mai eficiente metode în lume pentru tratamentul progresării miopiei dobândite;
- **lentilele sclerale rigide NormalEyes** – special concepute pentru corectarea deformărilor severe ale corneei (keratoconus, astigmatism sever, distrofii corneene) şi recomandate pentru sindromul de ochi uscat sever.
- **tratament laser** – cu o importanţă terapeutică majoră, aplicat eficient în caz de retinopatie diabetică, degenerescenţe retiniene, glaucom, cataractă secundară.
- **tratament terapeutic revoluţionar pentru keratoconus** – „Oculus Prim” este primul centru care a introdus în Republica Moldova CrossLinking-ul cornean Epi-on, utilizând ultima generaţie de lămpi Seiler, care permit realizarea procedurii în doar 5 minute, cu risc minim de complicaţii postoperatorii, asigurând o perioadă scurtă de recuperare.

„Oculus Prim” este reprezentantul oficial în Republica Moldova al companiei Soleko, care oferă:

- **lentile de contact „Soleko Queen’s”** – o noutate absolută pentru Republica Moldova; compania Soleko a revoluţionat domeniul optic la nivel mondial, utilizând la producerea lentilelor de contact moi un material inovator, în compoziţia căruia intră două ingrediente-cheie: glicerina şi acidul hialuronic. Este disponibilă o gamă largă de lentile de contact: lunare sferice „SOLEKO QUEEN’S” M1 YAL, lunare torice „SOLEKO QUEEN’S” T1 YAL (pentru astigmatism), lentilele de contact colorate „Soleko” cu şi fără dioptrii – Solitaire, Twins şi Trilogy;
- **Queens I-FRESH Yal** – lacrimă artificială cu acid hialuronic – o soluţie lubrifiantă, care se potriveşte tuturor lentilelor de contact;
- **soluţii multifuncţionale Soleko,** care oferă următoarele beneficiii: curăţare profundă a lentilelor, hidratare şi lubrifiere maximă, sterilizare eficientă, menţinerea filmului lacrimal.

„Oculus Prim” este reprezentantul oficial al companiei SWING – producătoare de o gamă largă de ochelari de diverse culori şi forme, fabricate din materiale ECO, incasabile, antialergice, antibacteriene şi uşoare.

Pentru informaţii despre serviciile şi produsele inovatoare disponibile la „Oculus Prim”, accesaţi www.oculusprim.md.

EYEBRIGHT MEDICAL

ALL FOR EYES

Eyebright Medical Group focuses on the protection and caring of human beings' eyes and vision health. Since its foundation, Eyebright has been continuously providing excellent medical products and services to the global ophthalmic surgeon, patients and consumers.

As a National High-tech Enterprise and the Joint Laboratory of National Engineering Research Center for Ophthalmic Equipment in China, Eyebright continuously invests in research and development for new technologies. We own innovative product designs and modern production facilities with the most advanced manufacturing and inspection equipment. Now we can provide high quality products and professional solutions for the treatment of ophthalmic diseases and vision problems such as cataract, glaucoma, refractive errors, presbyopia, dry eyes, etc.

We believe in responsibility, innovation, perfection and efficiency. Every detail of the products is crucial to us.

Eyebright, your best partner!

Intraocular lenses (IOLs)
Cartridge & injector
Surgical instrumentation
Capsular tension ring
Viscoelastics
Orthokeratoloy lens
Rigid gas permeable lens

Forceps
Scissors
Speculum
Cannulas
Needle holders
Hook& manipulators
Vitreoretinal instruments
Instruments sets

Eyebright®

Eyebright Medical Group
Headquarter:
Add:North 1F, Building 6, No 37
Chaoqian Road, Changping District,
Beijing, 102200,China
Tel: (8610)6074 5730
website: www.ebmedical.com
Email: contact@ebmedical.com

CATARACT

CATARACT SURGICAL COVERAGE AND BARRIERS IN THE REPUBLIC OF MOLDOVA

Paduca Ala, Bendelic Eugen, Inga Sorbalo, Garaba Angela
State University of Medicine and Pharmacy "N. Testemitanu" Department of Ophthalmology

Aim: To describe Cataract Surgical Coverage (CSC) and barriers in the Republic of Moldova
Methods and Materials: Cataract Surgical Coverage, both for "eyes" as well as "persons", was calculated from RAAB survey conducted in 111 communities (towns/ villages) in the Republic of Moldova. A total of 3877 subjects out of the 3885 eligible subjects were examined. Data collection was done in selected clusters by house to house visits using a standard methodology of examination. Visual acuity, cause of vision loss, history of cataract surgery and cause of poor vision (if less than 6/60) were assessed.
Results: The blindness prevalence in the Republic of Moldova is 1.4% (95%CI 1.0-1.8) -13.693 people, the major causes of blindness beeing untreated cataract (58.2%),
The age and sex adjusted prevalence of cataract responsible for bilateral blindness (vision less than 3/60 in better eye) among the study population was 0.65% (males 0.54%, females 0.72%). The age and sex adjusted cataract surgical coverage (CSC) for persons with cataract responsible for vision less than 3/60 was 77.8% with similar rates among both sexes.
This study showed that financial problem (mostly indirect costs as travel expenses, etc) was the most important barrier (28,6%) to uptake cataract surgery.
Conclusions: The RAAB survey in the Republic of Moldova established that untreated cataract is the major cause of avoidable blindness in this area and the CSC increase with worsening of visual acuity, suggesting that persons undergo surgery in the later stages of cataract.

RESULTS IN CATARACT SURGERY WITH PHACOEMULSIFICATION AT PATIENTS WITH IFIS SYNDROME

Dr. Cristina Nicula, Dr. D. Nicula, Dr. Raluca Popescu
Eye Hospital, Cluj-Napoca, Romania

Purpose: To establish the tamsulosin effects during cataract surgery at patients with cataract.
Material and method: We studied a number of 25 eyes, with cataract, from 17 patients treated with tamsulosin for prostate benign hypertrophia. The patients were operated for cataract by facoemulsification technique with intraocular lens implantation.
Results: In 80 % of cases we had a preoperative pupilar diameter of 3 mm. In 50% of cases, during the surgery we had a pupilar constriction in 10 to 15 minutes after the beginning of the surgery. In 85% of cases we had an iris flaccidity and in 15% of cases we had an iris prolapse at sideport levels. In 13 % of cases it was necessary to introduce iris retractors.
Conclusions: Cronical use of tamsulosin induce intraoperative difficulties which can increase the number of intraoperative complications.

OPTİONS İN REFRACTİVE CATARACT SURGERY

Prof. Dr. Mahmut Kaşkaloğlu
Kaskaloglu Eye Hospital, Izmir, Turkey

New so called premium intraocular lenses and technological advances in surgical devices have taken cataract surgery to new level. Today we have more to offer to our cataract patients than ever in terms of efficacy and safety. Advances in intraocular lenses such as aspheric surfaces, toricity, multifocality and ability to be implanted through smaller incisions provide a better visual outcome. The advances in optical biometry and intraocular lens calculations enable us precise IOL power selection and new optical tracking electronic devices enable us to correctly position the toric lenses intraoperatively. Femtosecond laser assisted cataract surgery and new phaco machines make cataract surgery more precise and safer. In this presentation I will review these advances in refractive cataract surgery and reflect my experience.

QUALITATIVE ANALYSIS OF CHANGES IN THE POSTERIOR SEGMENT OF THE EYE WICH FEMTOSECOND LASER–ASSISTED CATARACT SURGERY

Zabolotniy A., Misakyan K., Bronskaya A.
FSBI «The Academician S.N. Fyodorov IRTC "Eye Microsurgery" of the Minzdrava of Russia the Krasnodar Branch; Kuban State Medical University of the Ministry of the Minzdrava of Russia; Russian Federation

Purpose: Analysis of the qualitative changes in the posterior eye segment structures – choroid thickness (CT) and distance height of vitreous posterior hyaloid membrane (VPHM) from retina by spectral optical coherence tomography (SOCT) method in femtosecond laser–assisted cataract surgery (FLACS).

Methods and Materials: 46 eyes with immature cataract and retinal SOCT possibility before the operation. Average corrected visual acuity – 0.3±0.05; eye length - 22.51±0.9 mm; IOP – 20 mm Hg; age - 65 years. Before and after surgery (1, 3, 5 days), SOCT of vitreoretinal interface and choroid was performed, RTVue XR 100 «Avanti», Optovue. Group 1, 24 patients, ultrasound FEM of cataract, «Stellaris», B&L. Group 2, 22 patients – FLACS, LenSx, Alcon. Capsulorhexix diameter – 4.9-5.2 mm (energy 12.5 μJ). Fragmentation of the lens nucleus by «chop», «cylinder» methods (energy 10-15 μJ). The main corneal incision – 2.5 mm (energy 5 μJ). Phakoaspiration on «Stellaris», elastic IOLs were implanted. FLACS duration – 9-10 minutes, femtolaser effect ≤ 2 minutes.

Results: Before the surgery CT in Group 1 was 253.1±62.1 microns. In 1, 3, 5 days after FEM of cataract CT were 310.4, 262.7, 258.1 microns. Distance height of VPHM before the surgery was 400.1 microns. In 1, 3, 5 days after surgery – 505.6, 492.7, 500.3 microns.

In Group 2 before the surgery CT was 256.4±60.3 microns. In 1, 3, 5 days after FLACS CT were 333.1, 279.4, 259.1 microns. Distance height of VPHM before the surgery – 366.2 microns. In 1, 3, 5 days after FLACS – 510.8, 506.2, 508.9 microns.

Reactive thickening of the choroid after surgery was determined in both groups. Group 1, 1th day – 57.3 microns (22.6%). By the 5th day CT became initial. Distance height of VPHM increased by 105.5microns. By the 5th day the situation was not changed. Group 2, FLACS, thickening of CT per 1 day is 76.7 microns, (29.9%). By the 5th day CT returned to previous values. VPHM was increased by 144.6 microns. By the 5th day the situation was not changed.

Conclusion: Increase of TC and distance height of VPHM in the early postoperative period was noticed in the both groups. After FLACS big figures are conditioned apparently by intraoperative vacuum effect and/or sudden IOP changes during femtolaser stage. Return of CT to initial state indicates processes reversibility. Patients with vitreomacular adhesion when FLEC are highly risky of vitreomacular traction.

LABORATORY TESTS DIFFERENCES BEFORE CATARACT SURGERY BETWEEN GLAUCOMA PATIENTS AND PATIENTS WITH DIABETES

IM Ciotu[1,2], **V. Atanasiu**[1], **LE Gaman**[1], **C Leasu**[2], **A Miruta**[2], **P Badila**[2], **LM Voinea**[2]
[1]*Biochemistry Department, University of Medicine and Pharmacy "Carol Davila" Bucharest, Romania*
[2]*Ophtalmology Clinic, University Emergency Hospital, Bucharest, Romania*

Purpose: This study aims to emphasize the differences that can be identified in blood workup and imaging in patients diagnosed with glaucoma and cataract or diabetes and cataract.
Method: This retrospective study analyzes 120 patients admitted to the Ophthalmology Clinic of the Bucharest University Emergency Hospital during November 2014 and July 2015. Forty of them were diagnosed with primary open angle glaucoma (POAG) and age related cataract (group A), another forty had only age cataract (group B, control group) and finally forty had diabetes and age related cataract (group C). The variables analyzed were age, visual acuity, intraocular pressure, visual field, biomicroscopy, ocular fundus, specular biomicroscopy, common blood tests. Demographic data was also analyzed. Exclusion criteria were closed angle glaucoma, secondary glaucoma, posttraumatic cataract, and history of infection or inflammation of the eye or systemic infections (such as HIV, hepatitis). All this data was statistically analyzed.
Results: Following analysis, there was no statistically significant difference between the three groups. A criteria in favor of surgical intervention at a younger age is lower visual acuity in group A – glaucoma patients. Considering the risk of postoperative cystoid macular oedema, cataract surgery in patients having diabetes, must be weighed thoroughly. However it is also important to take into account the fact that crystalline lens opacification happens earlier compared to the other studied groups and also cataract in diabetics is thicker and requires using higher intensity ultrasound. It has been found that the number of endothelial cells is lower (statistically significant – $p<0.0001$) in group A, the total number of cells being inversely proportional to the value of intraocular pressure. Patients on four glaucoma medications have a higher number of endothelial cells than those on only three medications. A lower number of endothelial cells is also found in group C, however the thickness of the cornea (determined by pachymetry) is greater compared to the other groups.
Conclusions: Glaucoma patients favor surgery for cataract earlier compared to the other studied groups, owing to lower visual acuity of these patients. Important factors in maintaining normal structure and number of endothelial cells are IOP and also free oxygen radicals.
Acknowledgement: This study was supported by the doctoral program POSDRU/159/1.5/S/137390, from the European Social Foundation.

SOME ETIOLOGICAL FACTORS OF SENILE CATARACT WITH SECONDARY GLAUCOMA

Ion Jeru
Department of Ophthalmology, State University of Medicine and Pharmacy "Nicolae Testemitanu", Chisinau, Republic of Moldova

The **purpose** the study was to evaluate the level of total prooxidant and antioxidant activity in the tear of patients in the early stages of senile cataract with gastrointestinal diseases.
Methods: 202 patients aged 50-70 years in the early stages of senile cataract have been investigated. Control group consisted of 20 health subjects of the same age. Total prooxidant and antioxidant activity in the tear was determined according to the *method* of L. Galactionova.
Results:

1. Patients with senile cataract and chronic hepatitis (n=20):

a) Total prooxidant activity in the tear - 97,22±1,05%.
b) Total antioxidant activity in the tear - 15,02±1,21%.

Patients with senile cataract, chronic hepatitis and secondary glaucoma (n=20):
a) Total prooxidant activity in the tear - 96,11±1,02%.
b) Total antioxidant activity in the tear - 16,02±1,24%.

2. Patients with senile cataract and chronic pancreatitis (n=20):
a) Total prooxidant activity in the tear - 80,14±1,21%.
b) Total antioxidant activity in the tear – 24,44±1,6%.

Patients with senile cataract, chronic pancreatitis and secondary glaucoma (n=20):
a) Total prooxidant activity in the tear - 79,21±1,3%.
b) Total antioxidant activity in the tear – 25,51±1,5%.

3. Patients with senile cataract and chronic cholecystitis (n=20):
a) Total prooxidant activity in the tear - 65,2±0,9%.
b) Total antioxidant activity in the tear - 34,25±1,4%.

Patients with senile cataract, chronic cholecystitis and secondary glaucoma (n=20):
a) Total prooxidant activity in the tear - 64,9±0,8%.
b) Total antioxidant activity in the tear - 35,29±1,51%.

4. Patients with senile cataract and chronic colitis (n=22):
a) Total prooxidant activity in the tear - 60,07±0,8%.
b) Total antioxidant activity in the tear - 38,01±0,99%.

Patients with senile cataract, chronic colitis and secondary glaucoma (n=20):
a) Total prooxidant activity in the tear - 59,09±0,9%.
b) Total antioxidant activity in the tear - 39,04±0,84%.

5. Patients with senile cataract and chronic gastritis (n=20):
a) Total prooxidant activity in the tear - 58,77±1,02%.
b) Total antioxidant activity in the tear - 39,05±0,44%.

Patients with senile cataract, chronic gastritis and secondary glaucoma (n=20):
a) Total prooxidant activity in the tear - 58,62±1,04%.
b) Total antioxidant activity in the tear - 40,08±0,56%.

6. Control group (n=20):
a) Total prooxidant activity in the tear - 56,82±1,39%.
b) Total antioxidant activity in the tear - 40,02±1,41%.

Conclusion: More expressed changes of investigated indices have been detected in patients with chronic hepatitis (increase of total prooxidant activity by 71% and decrease of antioxidant activity by 62,47% versus control group).

SURGICAL TECHNIQUES FOR CRYSTALLINE LENS DISLOCATION: CLINICAL CASES REVIEW

Gh. Ivanov[1], N. Vintea[2], I. Lisii[2]
[1]Doctor of medicine, associate professor, State University of Medicine and Pharmacy "Nicolae Testemitanu", Chisinau, Republic of Moldova
[2]Opthalmologist, 'Ovisus' medical centre, Chisinau, Republic of Moldova

Purpose: To highlight the surgical techniques and postoperative results in several cases of crystalline lens dislocation.
Methods: We present the cases of three patients aged 2 to 9 years old (at the moment of surgery), diagnosed with bilateral lens dislocation of various degree, associated with established Marfan syndrome in 2 children (according to the Ghent criteria). Surgery was performed in all cases, the chosen technique depending on the grade of dislocation and the ocular comorbidities, aiming to

minimize intraoperative trauma. The case of bilateral lens dislocation with minimal ligamentary support, lensectomy with posterior chamber scleral fixated IOL implantation was performed. Other 2 cases, in which there was some extent of zonular suport, intracapsular IOL implantation was chosen. In the conditions of less compromised zonules (1 of 4 eyes), complete capsulorhexis, use of Morcher type capsular tension ring, phacoaspiration and PC IOL implantation were done. In the other 3 eyes, the zonules were damaged in more than 2 quadrants, so an initial capsulotomy, a pre-sutured Cionni type capsular tension ring introduction, followed by a continuous capsulorhexis, hooking its margins with iris-retractors (and thus centering the lens), scleral fixation of the capsular ring (with 10-0 polypropilene), filling the retrolental space and the anterior chamber with viscoelastics, phacoaspiration and intracapsular implanation of an mono-piece acrylic PC IOL. In most of the cases, viscoelastics removal was completed by aspiration including the use of vitreotome, supported by irrigation via anterior chamber maintainer.

Results: In all of the mentioned cases there were no postoperative complications. The postoperative examination at 2, 4,8 weeks and a year after surgeries revealed a transparent cornea, sufficiently centered IOL, adequate pupillary response, normal intraocular pressure and minimal inflammatory reaction. The best visual acuity 2 weeks after the surgery rose averagely by 2 lines compared to the best corrected preoperative visual acuity.

Conclusions: The surgical technique used for crystalline lens dislocations depends mostly on the state of zonular support. In the majority of the cases and especially in children, scleral-fixated PC IOL or intracapsular implantation with the use of scleral fixated capsular ring, though challenging, are mandatory and lead to good and stable postoperative results.

FUNCTIONAL VISION AFTER CATARACT REMOVAL WITH MULTIFOCAL AND ACCOMMODATING INTRAOCULAR LENS IMPLANTATION

Sh.Skhirtladze, Prof. Merab Dvali, T.Chitadze, I.Vardanashvili
"Akhali Mzera" Eye clinic Pvt. Ltd, Tbilisi, Georgia

Purpose: To compare the efficacy (functional vision, spectacle dependence) of the AcrySof® IQ ReSTOR® multifocal intraocular lens (IOL) (Alcon) and the Tetraflex (Lenstec) accommodating IOL.

Methods: This prospective study comprised patients scheduled to have standard phacoemulsification surgery with IOL implantation. Patients expressing a preference for spectacle independence were allocated to the AcrySofIQ ReSTOR multifocal IOL group. Those expressing no preference received the the Tetraflex (Lenstec) accommodating IOL. Efficacy measures included distance and near uncorrected visual acuity (UCVA) and patient-reported spectacle independence.

Results: 10 patients (20 eyes) had bilateral implantation of the AcrySofIQ ReSTOR multifocal IOL, and 5 patients (9 eyes) had implantation of the Tetraflex (Lenstec) accommodating IOL. Six to 18 months after surgery, 82.4% of eyes in the multifocal IOL group and 77.8% in the accommodating IOL group achieved a distance UCVA of 20/20 (Snellen) or better; the difference between groups was not significant. However, a significantly greater proportion in the multifocal IOL group than in the accommodating IOL group (76.5% versus 44.4%) achieved a near UCVA of N5 (Snellen 20/40) or better (P= .0068). Sixteen eyes (94.1%) with the AcrySofIQ ReSTOR IOLs and 4 (50.0%) with Tetraflex (Lenstec) IOLs reported spectacle independence.

Conclusions: In this single-surgeon single-site study, a greater proportion of AcrySofIQ ReSTOR multifocal IOL recipients than Tetraflex (Lenstec) IOL recipients achieved functional near visual acuity. Vision on far distance was better with accommodative IOLs.

PEX SYNDROME AT THE PATIENTS WITH CATARACT

N. Corduneanu, R. Sevciuc, V. Gherasim, V. Chisca, V. Gogu
USMF "N. Testemitanu", IMSP IMU, Chisinau, Republic of Moldova

Pseudoexfoliation (PEX) is a systemic disease characterized by the deposition of extracellular fibrillar material. In this syndrome, PEX material deposits on the corneal endothelium, iridocorneal angle, iris, anterior lens capsule, ciliary processes, and zonules, as well as systemically in organs such as the heart, lungs, liver, gallbladder, kidneys, meninges, and skin. PEX is a risk factor for glaucoma and has been correlated with an increased incidence of cataract formation.

Purpose:

1. To evaluate clinical particularities in patients with cataract and PEX:
2. To determine the frequency and types of complications during cataract surgery in patients with PEX.

Methods: This study was carried out on 132 eyes of 66 patients, aged 64 – 84 years, with cataract and PEX who underwent cataract surgery in Emergency Medicine Institute (IMSP IMU).

Results: Of the total patients with cataract and PEX 48,5% were women and 51.5% men. Most of the patients were age older than 70 years 72,7%.

PEX was identified unilateral in 30,3% of cases and bilateral in 69,7%.

Cataract with PEX was associated with systemical pathologies of heart - in 66,7%, respiratory sistem - in 18%, kidneys – in 15%, brain in - 6% adn diabetes type 2 in - 6%.

In 30,3% of cases was diagnosed pseudoexfoliation glaucoma. Preoperative intraocular pressure in patients with cataract and PEX was within the limits of the norm in 80%, and high pressure in 20%.

Poor pupillary dilation was the most common perioperative finding. This factor made surgery more difficult due to poor visualization. Posterior capsular rupture and vitreal prolapse in 9% patients were the most common complications.

Intraocular elevation of pressure occurred most commonly 24 hours postoperatively in 20% patients. Specifics of surgical treatment in patients with cataract and PEX (in particular with glaucoma) was washing the long-term of viscoelastic and pseudoexfoliations from the angle of the anterior chamber.

Conclusions:

1. PEX may be associated with pseudoexfoliation glaucoma in 30.3 % cases or occurs with high intraocular pressure in 20 % cases which can affect the visual functions of the eye after surgery.
2. The long-term washing of the viscoelastic and pseudoexfoliations from the angle of the anterior chamber during the surgery, seems to be very important in order to minimized the risks of intraocular pressure elevation after surgery in patients with PEX and cataract.
3. PEX is a systemic disease with ocular and extraocular manifestations, associated with heart (predominant-66,7 % cases), lung and kidney pathology.

DIFFERENT REFRACTIVE BIOPTICS

Sh.Chitiashvili, Prof. M. Dvali, N.Tsintsadze, N. Kvaratskhelia
"Akhali Mzera" Eye clinic Pvt. Ltd, Tbilisi, Georgia

Purpose: To evaluation result of combining procedures such as: 1) phakic posterior chamber lens implantation and eximer lasik surgery; 2) intrastromal corneal ring segment (ICRS) and phakic posterior chamber lens implantation; 3) PRK (penetrating keratoplasty) and toric intraocular lens implantation. 4) ICRS (Intrastromal corneal ring segment) and sclera contact lenses.
Methods: Preoparative and postoperative evaluation included: corneal topography, visometry, refractometry, pachymetry, ophthalmometry. The different bioptic procedure was carried out on 36 eyes of 22 patients. Follow up period included 5-6 month.
Results: Preoperative average values of the manifest refraction were -17.25sph with -1.50 cyl, which changed to-3.75sph with -1.4 cyl after implantation ICL in the posterior chamber. Following the lasik procedure the uncorrecting visual acuity improved to 0.68 and fully corrected to 0.79. The final refraction measured +0.16 sph with -0.48 cyl.
Conclusion: In myopia and hyperopia, bioptics with phakic intraocular lenses or refractive lens exchange and subsequent excimer laser yields improved predictability and unchanged safety, compared with sole intraocular lens surgery. Complications are related mainly to intraocular lenses. In keratoconus, intracorneal rings have been successfully combined with phacoemulsification or with phakic intraocular lenses in a limited number of eyes. Bioptics improves vision and halos and adds no particular risks to phakic or pseudophakic intraocular lens implantation in either myopia or hyperopia. Reverse bioptics, with phakic intraocular lenses or refractive lens exchange, can be used to correct regressed corneal surgery.

BRINZOPT

brinzolamidă 10 mg/ml
picaturi oftalmice, suspensie, 5ml

DIRECT LA TINTA
eficienta si penetrabilitate

Brinzopt este indicat pentru scăderea presiunii introculare crescute în:

- hipertensiune oculară
- glaucom cu unghi deschis

Brinzopt - Brinzolamidă

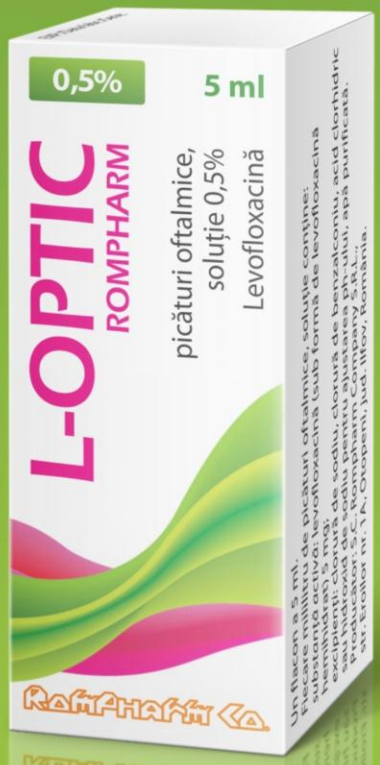
Rompharm Company

L-OPTIC

levofloxacina 5 mg/ml
picaturi oftalmice, solutie, 5ml

DIRECT LA TINTA
eficienta si penetrabilitate

- **Tratamentul topic al infectiilor bacteriene oculare externe**
- **Se poate administra incepand de la varsta de 1 an, in aceleasi doze ca la adult**



L – Optic - Fluorchinolona
(chinolona de generatia a treia)
cu spectru larg de actiune

ROMPHARM CO.
Rompharm Company

oculus prim

PARAGON NormalEyes™ 15.5

Lentile sclerale Normal Eyes

NEW

Avantajele lentilelor sclerale:

- Nu traumatizează corneea (ceea ce este posibil în cazul lentilelor corneene)
- Permeabilitate înaltă de oxigen (145 Dk/t)
- Acuitate vizuală maximal posibilă
- Bine tolerată și confortabilă
- Produs original SUA
- Termen de utilizare – 1 an

Indicații:

- Keratoconus
- Astigmatism sever
- Cicatrice posttraumatică a corneei
- Stare după transplant de cornee și keratotomie radiară
- Sindrom de ochi uscat pronunțat
- Sindromul Stevens-Johnson
- Consecințele arsurilor chimice corneene
- Pemphigoid cicatricial

Republica Moldova, Chișinău, str. Alexandru cel Bun 108/1
tel.: +373 22 83 70 63
mob.: +373 602 111 60
www.oculusprim.md

oculus prim

NEW

Tratamentul keratoconusului

Cross-Linking cornean

Metoda “Epi-on”

- **tratament inovativ în Rep. Moldova exclusiv la Centrul Medical “Oculus Prim”**
- **la fel de eficientă ca și tratamentul standart “Metoda Epi-off”**
- **risc minim de complicații postoperatorii**
- **perioadă scurtă de recuperare**
- **micşorarea timpului de expunere la radiație de la 30 la 5 minute**
- **procedură confortabilă şi nedureroasă pentru pacient**

INFORMAȚII ȘI PROGRAMĂRI LA:

Republica Moldova, Chișinău,
str. Alexandru cel Bun 108/1
tel.: **+373 22 83 70 63**
mob.: **+373 602 111 60**
www.oculusprim.md

INTRAOCULAR LENS

HYDROPHOBIC ASPHERIC ACRYLIC IOLs

HYDROPHOBIC ASPHERIC ACRYLIC IOLs

EYEBRIGHT MEDICAL

ALL FOR EYES

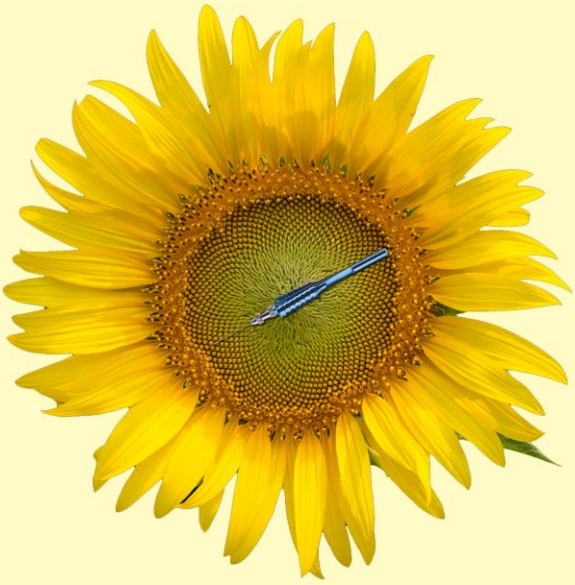
Eyebright®

www.ebmedical.com

BEIJING CHINA

OPHTHALMIC SURGICAL INSTRUMENT

INSIST ON HIGH QUALITY



INSIST ON HIGH QUALITY

EYEBRIGHT MEDICAL

ALL FOR EYES

Eyebright

www.ebmedical.com

BELLE.IF

BEIJING CHINA

GLAUCOMA

DIFFICULTIES IN GLAUCOMA DIAGNOSIS AND TREATMENT

Prof. Dorin Chiselita
Iasi, Romania

This presentation emphasizes the challenges any clinician meets when glaucoma diagnosis and treatment is concerned. Moreover the dynamic interaction between ophthalmologist and patient is to be discussed.
Topics that require special attention are related to atypical optic disk aspects (tilted disk, optic nerve pit, optic disk in myopia, small/large optic disk) or associated ophthalmic/ systemic diseases that mimic perimetric changes in glaucoma.
Therapeutic approach in ocular hypertension patients or glaucoma suspects is also challenging, as "target IOP" has no strict definition, adverse reactions are often reported and also complications related to any surgical intervention.
Success in glaucoma treatment is strongly connected to the patient's quality of life (financial support, health insurance system and cost coverage, tolerance for medication, compliance/ adherence in treatment).

DRAINAGE "GLAUTEX" - RD MODEL IN SURGERY OF REFRACTIVE GLAUCOMA

Aglaia Lobcenco, Vera Lupasco, Nicolai Frunze, Olga Sirbu
Ophthalmology department, Republican Clinical Hospital, Chisinau, Republic of Moldova

Purpose: Analysis of efficacy of new implantation of bioresorbable drainage "Glautex- RD in surgery of refractive glaucoma.
Materials and methods: We practice this new method for the past year and have applied it to a total of 6 patients (6 eyes) with refractive advanced glaucoma which cannot be compensated by drugs.

- ✓ In three cases (group I) surgery was performed on the previous intervention to remove scar tissue and then implanting the drainage.
- ✓ In three cases (group II) was performed trabeculectomy with implantation of drainage on the undamaged spot.

In both cases complications during surgery were not observed. In the early postoperative period in both groups evolution was relatively non reactive. Only one patient in first group had hyphaema.
We mention that after STB intervention with drainage "Glautex" - RD were not observed complications like hypotonia, atalamia of anterior chamber (provisional suture being applied) and detachment of the choroid.
Results and discussion: The period of observation was six months, during which patients were examined in complex program after every 1-3-6 months. In most cases the evolution was relatively simple non-reactive. Dynamics of IOP in both groups in the early postoperative period was within the limits 18.0±2.0 mm Hg and after 6 months IOP in group I, was within the limits 23.0±2.0 mm Hg on the background of instillations of the solution of Timolol 0.5%×2 and 20.2±2.0 mm Hg in group II in two cases without medication instilled drugs and a case with instillations of the solution of Timolol 0.5%×2 times.
Conclusions: 1. Implantation of drainage "Glautex" - RD model in surgery of refractive glaucoma, bring to a stable hypotensive effect. 2. STB with implantation of bioresorbable drainage "Glautex" –RD is a new method to prevent the sclero-scleral and sclera-conjunctival scarring process. 3. It is a relatively simple technique.

EXPERIENCE OF USING COMBINED PREPARATION - AZARGA IN THE TREATMENT OF PRIMARY OPEN ANGLEGLAUCOMA

Aglaia Lobcenco, Nicolai Frunze, Olga Sîrbu
Ophthalmology Department, Republican Clinical Hospital, Chisinau, Republic of Moldova

Purpose: Dynamic research of the hypotensive effect and compensation of intraocular pressure (IOP) in patients with primary open angle glaucoma (POAG) by treatment with Azarga. Determining the incidence and severity of side effects of this drug.
Materials and methods: The study included 60 people aged between 42-68 years with POAG (32 women and 28 men).Eye Examinations and hypotensive therapy is applied to both eyes, but the estimate of curative results is done on eye that meet the criteria of the study. Patients were divided into 3 groups:

- ✓ First group: included 20 patients with early stage of glaucoma.
- ✓ Second group: included 20 patients with developed stage of glaucoma.
- ✓ The third group: 20 patients with advanced glaucoma.

The period of observation was six months, during which patients were examined in full program after every 1-3-6 months.
Results and discussion: Systematic instillation of Azarga solution, topically twice a day, decreased values of IOP in the group of patients with early stage of glaucoma with 10-12 mmHg (33.3%) from initial values, at patients with evolved glaucoma with 9-12 mm Hg (32.3%) and in the case of patients with advanced stage with 8-10 mm Hg (30.5%) from initial values. Hydrodynamics research shows the effectiveness of hypotensive effect by reducing aqueous humor production volume.
Conclusion:

1. Clinical trials in patients with POAG treatment with Azarga solution, 2 times daily instillations confirm a decrease in the limits of 30.5-33.3% IOP from baseline.
2. The preparation combined in a bottle is a comfortable form of use and contribute to respect the indicated regime.
3. The preparation tested is well tolerated by patients and in most cases the side effects were not noticed.

EFFECTIVENESS OF DUOPROST SOLUTION IN PRIMARY OPEN ANGLE GLAUCOMA (POAG)

Aglaia Lobcenco, Nicolai Frunze, Olga Sîrbu
Ophthalmology department, Republican Clinical Hospital, Chisinau, Republic of Moldova

Purpose: To evaluate the effectiveness of Duoprost in topical applications. This drug was chosen for its capacity to reduce intraocular pressure (IOP) and decrease fluid production.
Materials and methods: For this study were examinated 30 patients with different clinical stages of glaucoma wich are receiving treatment with Duoprost (one instillation in day). Patient age ranged between 40-66 years and IOP values between 27-35 mmHg. The study was carried out for three months, during this time patients were examinated monthly.
Results and conclusions: Daily drug instillation with Duoprost reduced intraocular pressure in patients with early glaucoma with 9-11 mmHg, corresponding to 31% of innitial measures, and in patients with late stage glaucoma with 8-9 mmHg (28%) from the innitial measures during the study.
Conclusions:

1. Duoprost drug is well tolerated by patients and in most cases has no side effects.
2. If this drug is applied once a day has obvious hypotensive (28-31%) effect and slows the progression of the pathology.

3. Duoprost act on the uveo-scleral flow and intraocular fluid production, because of this, it's effectiveness is much higher compared to other drugs.
4. Duoprost is a drug of first choice in monotherapy of glaucoma.

DIABETIC NEOVASCULAR GLAUCOMA

Ass. Prof. A. Corduneanu, Prof. E. Bendelic, R. Sevciuc, N. Corduneanu
Ophthalmology Department, State University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

Retrospective study of 17 cases of diabetic vascular glaucoma. All patients had IOP more than 40 mmHg (by Maclacov's tonometry). Headache, vertigo, prominent corneal edema, rubeosis.
All patients have received treatment with anti-VEGF intravitreal injections and hypotensive drops. In cases of rubeosis recurrence intravitreal injections with anti-VEGF were repeated. 14 patients was performed antiglaucoma surgery – sinustrabeculectomy, 2 eyes were operated vitrectomy, and in 2 cases IOP was rewarded with drops.
Laser pan photocoagulation were performed in all eyes, due to transparency of anterior and posterior backgrounds.
Was obtained preserving visual function and maintaining normal limits IOP for 1 – 5 years and more.

NORMALIZATION OF IOP BY COMBINING BETA-BLOCKERS WITH ICA AND PG

Iulia Lopata[1], Natalia Vasilieva[2], Lucia Gutu[2], Eftodiev Victor[3], Sirbu Raisa[4]
[1]*Deppartment Ophthalmology, Public Health Medicine and Diagnostic Center, Chisinau, Moldova*
[2]*Department Ophthalmology Public Health Clinic Medical Institution Government,*
[3]*Deppartment Ophthalmology Public Health Agency Territorial Ciocana, Chisinau, Moldova,*
[4]*Deppartment Ophthalmology Public Health Care Institution, Orhei District Hospital, Moldova*

Purpose: To compare the hypotensive effects of beta-blockers in combination with carbonic anhydrase inhibitor and beta-blockers in combination with prostaglandins.
Methods: Were included patients with developed and advanced glaucoma (41 eyes study). The subjects were divided in two groups: users of beta-blockers in combination with carbonic anhydrase inhibitor and IOP at baseline 24,53±0,43 mm Hg, and users of beta-blockers in combination with prostaglandins IOP at baseline – 24,91 ±0,57 mm Hg respectively.
Results:During conducting study in group used of beta-blockers in combination with i carbonic anhydrase inhibitor mean diurnal IOP decreased to 20,5±0,2 mm Hg after one month and to 19,03 ± 0,27 mm Hg after 3 months ($p<0,001$).
In the group treated with BB blockers in combination with prostaglandins the mean diurnal IOP decreased to 19,69±0,57mmHg after one month and respectively to 18,41±0,26 mm Hg after 3 months ($p<0,001$).
In the group using BB + PG IOP reduction was higher (21% after 1 month and 26,1% after 3 months) compared with BB + ICA (16,4% after the first month and 22,4% after 3months) .
Conclusions: 1.Combination of beta-blockers with prostaglandins and beta-blockers with ICA was statistical difference in decease of IOP. 2. The most decreased of IOP were in the group who used BB + PG.

RETINALAMIN AS NEUROPROTECTIVE AGENT IN PRIMARY OPEN ANGLE GLAUCOMA

Natalia Palarie[1] MD, Tatiana Pasenco MD, PhD

[1]Ophthalmology Department, International Clinic, Orhei, Moldova

Laboratory of Tissue Engineering and Cell Cultures, University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

Laboratory of Endocrinology, University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

[2]Ophthalmology Department, State University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

Background: Glaucoma is a neurodegenerative disease characterized by loss of retinal ganglion cells and their axons. Neuroprotection is an evolving area in the management of glaucoma. Retinalamin is a complex of water-soluble polypeptide fractions with molecular weight not more than 10 000 Da. Medication has stimulating effect on retina lphotoreceptors and cellular elements, improves functional interaction between pigment epithelium and exterior segments of photoreceptors, glial cells. Mechanism of action of Retinalamin® is determined by its metabolic activity: Retinalamin® improves metabolism of ocular tissues and normalizes functions of cellular membranes, it optimizes intracellular protein synthesis, regulates lipid peroxidation processes of and optimizes energetic processes.

Aim: To evaluate the neuroprotective role of Retinalamin® in patients with primary open-angle glaucoma (POAG).

Methods: The study included 27 patients (50 eyes) with POAG with therapeutically normalized intraocular pressure, aged 50 to 70 years. They were divided into 2 groups. Patients of the first (main) group (15 subjects, 30 eyes) received 10 parabulbar injections of retinalamin 1.0 ml. Patients of the 2nd (control) group (12 subjects, 20 eyes), received only conventional vascular therapy. Follow-up was conducted in 1, 3, 6, 12, 18, 24 and 30 months and included visual acuity, computer static perimetry, tonometry, ophthalmoscopy, 3D SD optical coherence tomography, optic nerve photography.

Results: After Retinalamin administration clinically significant results were noted in 12 patients - 24 eyes - in the main group (extending of the visual field boundaries, increasing of visual acuity, increasing of the average thickness of retinal nerve fiber layer). At the end of the follow-up period in majority of patients in the control group we observed progression of POAG.

Conclusions: 1. Neuropeptides may play an important role in the primary open angle glacoma management. 2. Retinalamin is an effective neuroprotective agent in primary open angle glaucoma with compensated intraocular pressure.

UVEITIS

OCULAR TUBERCULOSIS IN REPUBLIC OF MOLDOVA. EPIDEMIOLOGIC DATA

Elvira Velixar
Department of Extra-Respiratory Tuberculosis, Institute Phtiziopneumology "Chiril Draganiuc", Chisinau, Republic of Moldova

Purpose: Considering that ocular tuberculosis (OTB) is a particular manifestation of the general infection of the human organism and that it manifests a rising trend in recent years, both in Europe and Northern America, the diagnosis and treatment remains a challenge. This study aims to offer a comparative analysis of regional (Republic of Moldova and Western Europe) epidemiologic data, in order to contribute to a better, more ample understanding and an unified approach in terms of ocular tuberculosis management.
Methods: Different data including demographics, symptoms, signs, investigations and treatment regimes were recorded in 22 patients with ocular tuberculosis, treated in the department of extra-respiratory tuberculosis, Institute Phtiziopneumology, Chisinau, Republic of Moldova, during a period from 2001-2013. Visual acuity at start and end of treatment were recorded.
Results: From a total of 22 patients, 5 (22,7%) were male, 17 (77,3%) female, age range 7 – 81, mean age was 26.7 years. The study included 9 (40,9%) children and 13 adults (59,1%) out of which 10 (45,5%) below the age 50 - able for labor. 7 (31,8%) were form the rural area, while 15 (68,2%) – urban area. All patients were born in the Republic of Moldova: Romanian ethnicity – 17 (77,3%), other (Russian, Ukrainian and Romani) – 5 (22,7%). The most frequent ophthalmological diagnosis was uveitis 20 (90,9%), granulomatous 4 (18,2%), non-granulomatous 16 (72,7), anterior uveitis 10 (45,5%), posterior uveitis 7 (31,8%), intermediate 1 (4,5%) and panuveitis 2 (9,0%). The most common symptoms were visual loss 19 patients (86,3%), blurred vision 18 (81.8%), red eye 13 (59,1%) and pain/discomfort 11 (50,0%). Known Tb contact 3 (13,6%), BGC scar 20 (90,9%) cases, positive tuberculin skin test 20 (90,9%). None were HIV positive. Out of 2 patients with pulmonary tuberculosis, 1 had a multi-drug resistant form, and other 2 children had intrathoracic lymph node tuberculosis. A positive tissue diagnosis was obtained in 1 (4,5%) patient from enucleated eye. Most patients were treated for 6 (36.4%) or 8 (40.9%) months, one patient was treated for multi-drug resistant disease. Most people (8 patients) were treated with 3 drugs, 7 patients with 4 and 5 patients with 5. All patients were administrated Rifampicin, Isoniazid and Pyrazinamide. 14 (63.6%) received local corticosteroids. Visual acuity improved following treatment in 16 (72,7%) patients – 17 affected eyes, remained unchanged in 8 (26.4%) patients – 8 eyes, and decreased in 2 (9.0%) cases – 2 eyes.
Conclusion: OTB is still a challenge to precocious diagnose and effective treatment. The issue requires high medical awareness and the collaboration of all regional professionals in order to improve the diagnostics process and treatment efficacy.

THE ROLE OF TOPICAL ANTIBIOTIC PROPHYLAXIS TO PREVENT ENDOPHTHALMITIS AFTER INTRAVITREAL INJECTION

Natalia Palarie[1] MD, Tatiana Pasenco[2] MD, PhD

[1]Ophthalmology Department, International Clinic, Orhei, Moldova

Laboratory of Tissue Engineering and Cell Cultures, University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

Laboratory of Endocrinology, University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

[2]Ophthalmology Department, State University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

The use of intravitreal pharmacologic agents in treating posterior segment disease has become increasingly common. Endophthalmitis is a rare but severe complication of this procedure. To avoid endophthalmitis topical antibiotics are routinely used before and after injections.

Aim: To compare the incidence of endophthalmitis after intravitreal injection with and without topical postinjection antibiotic prophylaxis.

Methods: This study reviewed 268 intravitreal Bevacizumab injections that were performed for various indications over a 2-year period. Patients were divide into 3 groups: 71 patient received topical antibiotics 3 days prior to injection and 3 days after the injection, 32 patients received topical antibiotics 3 days after the injection and 165 patients received no antibiotics.

Results: No endophthalmitis was observed in all groups.

Conclusion: Prophylactic use of pre- and postinjection topical antibiotic does not prevent endophthalmitis and their use may be unnecessary.

RETINA/POSTERIOR POLE

VITRECTOMY FOR PROLIFERATIVE DIABETIC RETINOPATY

Balta Florian
Bucharest Eye Hospital and Clinic, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Purpose: To evaluate the efficiency of small gauge 25 G and 27 G instruments for treatment of proliferative diabetic retinopathy (PDR).
Methods: Different techniques for the 25 G and 27 G high speed (5000 or 7500cpm) vitrectomy for PDR are presented. The proliferative membranes can be efficiently removed, the small size of the instruments and the high speed, allow precise cutting near the retina and very low traction.
Conclusion: High speed, small gauge 25 G and 27 G vitrectomy is an efficient method for the treatment of proliferative diabetic retinopathy (PDR).

LIVING WITH WAGNER SYNDROME: CLINICAL CASE REPORT

G. Ivanov[1], S. Bulici[2], N. Vintea[2], I. Lisii[2]
[1]Doctor of medicine, associate professor, State University of Medicine and Pharmacy "Nicolae Testemitanu", Chisinau, Republic of Moldova
[2]Ophthalmologist, "Ovisus" medical centre, Chisinau, Republic of Moldova

Purpose: Description of the clinical findings in a patient with Wagner syndrome and emphasizing the specifics of the clinical management.
Methods: Wagner syndrome is a rare autosomal dominant vitreoretinopathy, with early onset and progressive evolution. The clinical findings (mostly ocular) include: vitreous syneresis, progressive chorioretinal degeneration and atrophy, vascular abnormalities, mild to high myopia, glaucoma, cataract, poor dark adaptation and a significant risk of retinal detachment. We present the case of a 14 y.o. male patient with Wagner syndrome that has been diagnosed and receives medical support at our clinic. At the first consultation (at the age of 5) the patient presented with posterior capsular bilateral cataract, high myopia, peripheral retinal degeneration and 'optic empty vitreous' appearance. Cataract extraction via phacoaspiration and 7,0D PC IOL implantation was performed in both eyes, followed by an IOL reposition in the left eye due to trauma. During the last 10 years, the patient receives regular supportive treatment with neuroprotectors, antioxidants and physiotherapy.
Results: The cataract extraction with IOL implantation, as well as the supportive treatment allowed a significant improvement of visual functions (non-corrected visual acuity of 0,1-0,2); the regular check-ups showed stable retinal changes. The patient and his parents were informed about the higher risk of retinal detachment, the need to avoid marked physical activity and the importance of regular examinations.
Conclusions: Wagner syndrome is a rare genetic condition with various relatively specific clinical findings. All patients diagnosed with the syndrome need regular ophthalmological examination due to a significant risk of retinal detachment and glaucoma. The supportive treatment can slow down the progression of retinal degeneration.

AGE RELATED MACULAR DEGENERATION IN ACRYSOF IQ

Chiriac Vera, Cornelia Ceban, Tumuruc Irina, Toncoglaz Cristina
Medpark International Hospital, Chisinau, Republic of Moldova

There are two types of foldable intraocular lenses (IOL): 1) IOLs that protect against ultraviolet radiation (UVR) and 2) yellow–tinted IOLs that filter blue light. It is supposed that last type provides potential retinal photoprotection and prevents degenerative changes in the retina.
Aim: To evaluate the protective effect of blue–light filtering (BLF) IOL on the stopping the progression of age related macular degeneration (ARMD).
Methods: Literature review. This article evaluates the currently available published in–vitro, animal, clinical and epidemiological studies assessing the ARMD and exposure to blue light.
Result: Experimental and in – vitro researches showed that the presence of BLF IOL significantly attenuated cell death, VEGF and ROS expression, and increased GSH, PEDF, XIAP protein. There are some clinical and epidemiological researches that approve the protective effect of BLF IOL and others which disapprove this theory. The evolution of clinical signs, macular thickness and progression of geographical atrophy were studied in the two IOL groups.
Conclusion: BLF IOLs have no clinical risks. Implantation of BLF IOLs should be considered as a safe and inexpensive preventive measure to reduce the retinal phototoxicity and potential risk for ARMD in pseudophakic eyes.

RETINAL VEIN OCCLUSION-ASSOCIATION WITH SYSTEMIC DISEASES

Gr. Lalov, T. Hergeldzhieva-Fileva, P. Vassileva
University Eye Hospital "Prof. Pashev", Sofia

Introduction: The retinal vein occlusion (RVO) is the second most frequent vessel disease of the eye after the diabetic retinopathy. The association with systemic diseases such as arterial hypertension, diabetes mellitus, hypothyreoid conditions, kidney dysfunction is known and well studied. The increase of the number of patients, who suffer from these diseases, leads to an increase of the number of patients with retinal vein occlusions as well.
Aim: To present our observations on the association between systemic diseases and retinal vein occlusion.
Materials and methods: A retrospective study of all consecutive patients with RVO, diagnosed and treated at our hospital in 2014. Analysis of their systemic diseases was made. A literature review of the clinical studies on the relation between the RVO and systemic diseases was performed.
Results: Fifty one patients (26 women and 25 men) with RVO have been treated at our hospital in 2014. Five of them had a bilateral affection. The mean age of the patients was 69 years (range 39-86 years). Branch retinal vein occlusion (BRVO) was diagnosed in 33 of the patients (64.7%), and central retinal vein occlusion (CRVO) in 18 (35.3%). The most common associations of the RVO were with: arterial hypertension - 39 patients (76.47%), diabetes mellitus - 19 patients (37.2%), ischemic heart disease - 18 patients (35.4%). The combination of retinal vein occlusion, arterial hypertension and diabetes mellitus was established in 15 patients (29.4%).
Discussion: The ratio of the patients with BRVO compared to these with CRVO is 2:1. The high percentage of patients with retinal vein occlusions, associated with systemic diseases, especially arterial hypertension and diabetes mellitus indicates the necessity of periodical prophylactic examinations, as well as strict control of the efficacy of their treatment.

LASER-ASSISTED CATARACT SURGERY COMPLICATED WITH GIANT RETINAL TEAR AND SUBRETINAL LENS FRAGMENT

Mihnea MUNTEANU[1], Cosmin ROSCA[1], Horia T. Stanca[2]
[1]*U.M.F. "Victor Babes" Timisoara, Romania*
[2] *U.M.F. "Carol Davila" Bucuresti, Romania*

We report the case of a 61-year-old man, which was referred to our retinal department because of a luxated lens fragment following femtosecond laser cataract surgery in his right eye, performed one day ago. The anterior segment examination revealed residual lens cortex in the anterior chamber, eccentric and intact capsulorhexis, and a large posterior capsule rupture. During removal of the lens fragment from the posterior segment, a giant retinal tear was discovered in the infero-temporal periphery of the right eye, approximately 130 degrees in circumferential extension, associated with a large subretinal lens fragment. Removal of the dropped lens fragments from the vitreous and from the subretinal space, and the management of the giant retinal tear are described. Possible causes which led to this rare complication of laser-assisted cataract surgery and ways to avoid it are discussed.
To our knowledge, this is the first report regarding a femtolaser-induced retinal tear complicated with subretinal lens fragment following laser-assisted cataract surgery.

TWO CASES OF ACUTE RETINAL NECROSIS (ARN)

P. Sapundzhiev, Hr. Krasteva, Y. Kirilova, T. Hergeldzhieva, P. Vassileva
University Eye Hospital "Prof. Pashev" Sofia, Bulgaria

Introduction: The clinical triad of acute panuveitis, occlusive retinal arteritis and peripheral retinal necrosis is named acute retinal necrosis (ARN). It often affects people with an immunodeficiency. In most of the cases it is caused by varicella zoster virus (VZV), herpes simplex virus 1 and 2 (HSV) and in some patients cytomegalovirus (CMV) is the pathological agent.
Aim: To present two cases of misdiagnosed patients, who subsequently were proved to have ARN.
Patients and methods: Two women (45- and 63- year old) were diagnosed with ARN at our clinic for a period of six years. The first patient was misdiagnosed as neurouveitis elsewhere and the second one - as a keratitis. The latter had also been diagnosed with a non- Hodgkin lymphoma a year before her visit to our clinic. Both of the patients had Herpes Zoster infection. The patients underwent a full eye exam, including visual acuity measurement, tonometry, biomicroscopy and ophtalmoscopy with a photo documentation, as well as a fluorescein angiography. The first patient was initially treated elsewhere with periocular and systemic corticosteroids, then with Aspirin and intravenous Acyclovir. She was later treated with intravitreal Ganciclovir and Acyclovir per os. An application of intravitreal Ganciclovir was our choice of treatment for the second patient, with an initial two injections in four days and one injection weekly for 1 month. Treatment with Valacylovir, Atropin and topical and systemic corticosteroids were also prescribed.
Results: The first patient developed a retinal detachment 3 months after her first visit to our clinic. She underwent a pars plana vitrectomy (PPV) with a silicone tamponade. Three months later the silicone was evacuated. A year after her first visit she came with a cataract and was operated with an intraocular lens (IOL) implantation with improvement of the visual acuity. In the second case the retinal necrosis due to Herpes Zoster infection, activated by an immunodeficiency was connected to leukemic condition (non- Hodgkin lymphoma) and a chemotherapy treatment for it. The patient had an improvement after the initial intravitreal injections. In both patients the fellow eye remained unaffected.
Conclusion: There is no guideline for the treatment of ARN. Despite the progress in the treatment of ARN there are still patients who develop retinal detachment and end up with visual acuity of

20/200 or lower. Nevertheless with the new generations of antiviral medications, the success in treating this serious condition has been improved. Intravitreal injections with antiviral agents are being used as a supplementary treatment to the intravenous Acyclovir in more severe cases.

ASSOCIATION BETWEEN NEUROOPHTHALMOLOGICAL AND NEUROLOGICAL CHANGES AT THE PATIENTS WITH DIABETIC RETINOPATHY

Veronica Chisca, Angela Corduneanu, Stanislav Groppa, Rodica Sevciuc, Veronica Gherasim

IMSP IMU, Department of Ophthalmology, Chisinau, Rep. of Moldova

The diabetes is pathology with a significant morbidity, the number of diabetic patients on Earth is about 371 mln, and it is in a continuous growth. In Republic of Moldova there are about 60.000 patients with diabetes.

Purpose of the study: To study the ophthalmological and neurological changes at the diabetic patients with a various degree of diabetic retinopathy.

Material and methods: In the study were included 41 patients (17 men and 23 women) who had diabetes type II with duration from 2 till 15 years. The age of the patients is between 42 and 75 years. The selected sample was examined ophthalmological, neurological, cardiological.

The Doppler-duplex examination of intra- and extracranian vessels was performed on 21 patients.

The obtained results: All of the patients were diagnosed with diabetic retinopathy of various degree namely: NPDR in early stages-2 eyes; NPDR moderate -4 eyes; severe NPDR- 8 eyes; PDR-66 eyes. Macular edema was present at 54 eyes. Neuroophthalmological changes were found in 15% of cases: anterior ischemic neuroopticopathy - 1 patient; ocular ischemic syndrome -2 patients; thrombosis of central retinal vein-1 patient.

Neurological investigations established pathology at every patient no matter of the duration of diabetes and the degree of retinopathy. Diabetic sensitive and motor polineuropathy was diagnosed in 89 % of cases, diabetic encephalopathy in 70 % of cases, chronic cerebrovascular disease at 2 patients, C4-C5 cervical spondylosis at 1 patient.

At the Doppler- duplex of intra and extracranial vessels were found atherosclerotic plaque in the common carotid artery in 63 % of cases, uni-or bilareral jugular vein ectasia in 36 5% of cases, the "King-King" syndrome of the internal carotid arthery in 3 %. After cardiological examination was established that 60 % of patients had a cardiac pathology (high blood pressure, angina pectoris, heart failure)

Conclusions:

1. All the patients with diabetic retinopathy had also neurological pathology (diabetic polyneuropathy, encephalopathy, cervical spondylosis).
2. Were established neuroophthalmological complications which lead to the significant decrease of the visual functions (ischemic anterior neuroopticopathy, ocular ischemic syndrome, optic atrophy, thrombosis of central retinal vein).
3. The doppler-duplex examination of the extra- and intracranial vessels revealed circulatory changes at all the patients from the group of study.

THE EVOLUATION OF THERAPEUTIC CLINICAL FEATURES OF OCULAR TOXOCARIASIS

Dumbrăveanu L., Angheluță C., Andronic V.
Department of ophthalmology, USMF „N. Testemițanu”

Summary: Toxocariasis is a recurrent parasitosis caused by migration and persistence in the body of the larvae that determine poliorganic lesions. It is the most widespread zoonosis transmitted from animals to humans, caused by nematodes – intestinal parasites of dogs (T. canis) and cats (T. cati).

Goal: the presentation of a clinical case with ocular toxocariasis.

Materials and methods: Patient B.C., female, 21 years old, with ocular toxocariasis.

Has been performed:

- visual acuity;
- biomicroscopy;
- oftalmoscopy;
- visual field;
- Optical Coherence Tomography (OCT);
- infectionist doctor consultation.

Laboratory findings:

- Stable and durable eosinophilia, including eosinophilic leukemoid reaction (usually more than 15%).
- Leukocytosis and growth of ESR (Erythrocytes Sedimentation Rate).
- It is specific the growth of total globulin level due to immunoglobulin E (its range grows more than 20-30 times).

Conclusions:

- the main source infection for human beings is dogs and cats;
- when Toxocariasis is suspected it is important the collaboration between ophthalmologist and infectionist doctor;
- before initiate treatment must be determined the parasites activity;
- asimptomatic patients and those with remaining antibodies don't need treatment.

THE OPTICAL COHERENCETOMOGRAPHY – METHOD OF CHOICE IN MACULAR EDEMA EARLY DIAGNOSIS

Prof. Cușnir Valeriu, Andronic Sergiu, Cușnir Vitalie, Cușnir Valeriu jr.
Ophthalmology Department, State University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

Introduction. In contemporary studies Optical Coherence Tomography is a modern noninvasive method,
non-contact of macular edema early diagnosis in various ocular pathologies.

Objective of the study. The application ofOptical coherence tomography in macular edema early diagnosis and the appreciation of the treatment applied effectiveness.

Material and methods. The study includes2100 patients (4200 eyes)between the ages of 50-82 years, the average age of 65±2 years, diagnosed in ophthalomology clinic nr.2 "Nicolae Testemițanu" State University of Medicine and Pharmacy with macular edema in age-related macular degeneration (AMD), nonproliferative diabetic retinopathy (NDR), proliferative diabetic retinopathy (PDR), occlusion of retinal vessels (ORV), central serous chorioretinopathy (CSC).

OCT was performed in all patients in macular area before and after the treatment for an accurate determination of diagnosis and retinal changes.
Results.OCT allowed to obtain detailed information about the structure of the retina, the thickness and the status of each layer of the retina before and after this treatment.On repeated examination of patients, applying macula OCT, an obvious decrease of cystoid macular edema was determined, the settlement of neuroepithelial departure and pigmenar epithelium of the retina, the reduction in size of neovascular complex, and the decreasing of the macular areaaverage thickness(neurosensory retina and pigmenar epithelium) from 650±30 micron to260±30 micron in AMD, NDR, PDR, ORV, CSC.
Conclusions: Optical coherence tomography of the retina is: 1.A modern noninvasive method, non-contact of macular edema early diagnosis with aprecision of 5-6 micrometers of macular edema in AMD, NDR, PDR, ORV, CSC. 2. It presents an opportunity for dynamic monitoring of the effectiveness of the treatment applied.

AGE-RELATED MACULAR DEGENERATION, DIAGNOSIS, AND TREATMENT. THE VITALUX PLUS APPRECIATION OF EFFECTIVENESS IN PATIENTS WITH ATROPHIC FORM OF AMD

Cușnir Valeriu PhD, Professor, Andronic Sergiu
Ophthalmology Department, State University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

Actuality of the theme: The problem of prevention, early diagnosis and treatment of age-related macular degeneration (AMD) is determined by the major importance of the issue in society. According to OMS data the frequency of AMD is more than 20% among the population over 60 years in developed countries.
The purpose: The effectiveness of the atrophic form of AMD treatment with carotenoids and Vitalux – Plus vitamins complex.
Material and method: The study was performed in ophthalmology clinic No.2 with a duration of 16 months and included 82 patients (164 eyes)aged between 52-75 years. Patients were divided into two groups:Basic 52 patients (104 eyes) that followed the course of treatment with carotenoids and Vitalux – Plus vitamin complex and the group of control with 30 patients (60 eyes)that followed the traditional course of treatment (vasodilators, angioprotectoare, vitamins).Diagnosis was performed before and after treatment:AV; Biomocroscopia, the posterior pole ophthalmoscopy with Volk lens, the Amsler test, the fundus photography, OCT (Optical Coherence Tomography of the retina), computerized visual field.Vitalux Plus - a complex of essential micronutrients with antioxidant carotenoids lutein and zeaxanthin. 52 patients received one tablet once a day during or immediately after a meal within 3-4 months in a row.Cure was repeated 2 times within 12 months. Patients were followed for a period of 6-10 months posttreatment.
Results and discussion: Clinical and laboratory investigations after treatment cure were repeated. Patients of the main group received Vitalux Plus which determined an improvement from 0.08 to 0.06 ± AV after the first course of treatment and up to 0.2 after the second course of treatment. It also led to positive changes in the retina confirmed by optical coherence tomography and a growing awareness of the central retina during visual field examination as compared with the control group. Problem prevention and treatment of age-related macular degeneration is one of the main problems of modern ophthalmology as age-related macular degeneration has a very large expansion in the old population when at once with the increasing longevity of the population lives increase the morbidity frequency and the pathology severity .

Conclusions: Early diagnosis of AMD, dynamic monitoring, the administration of a Vitalux Plus complex treatment in the form of atrophic AMD will provide slowing and stopping the progression of the process with obvious improvement of visual functions.

FENOFIBRATE IN THE TREATMENT OF DIABETIC RETINOPATHY

Natalia Palarie[1], Tatiana Pasenco[2]

[1]*Ophthalmology Department, International Clinic, Orhei, Moldova*

Laboratory of Tissue Engineering and Cell Cultures, University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

Laboratory of Endocrinology, University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

[2]*Ophthalmology Department, State University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova*

In Moldova diabetic retinopathy (DR) is the leading cause of vision loss in adults of working age (20–65 years) and substantially impacts on the patient quality of life. Medical management of risk factors, specifically intensive control of glycaemia, blood pressure and blood lipids, is important in the prevention of DR. Fenofibrate is a fibric acid derivate that is currently used to treat high triglycerides and low HDL or as adjunct to stating therapy. It regulates the expression of many genes that work against lipids, inflammation, angiogenesis and cell apoptosis.

Aim: Our aim was to assess whether long-term lipid-lowering therapy with fenofibrate could reduce the progression of retinopathy and the need for laser treatment in patients with type 2 diabetes mellitus.

Methods: 97 person (194 eyes) with type 2 diabetes, dyslipidemia and moderate nonproliferative diabetic retinopathy were included in this study. Age ranged from 42 to 82 years. All patients had relatively well compensated diabetes with HbA1C ranging from 6% to 8%. The mean visual acuity on presentation was 0,5. Patients were divided into 2 groups - main (52 person) and control (45 person). All patients in the main group received fenofibrate 145 mg once a day for 8 months, patients in control group had conventional therapy. All patients had undergone standard ophthalmological examination, fundus imaging and OCT imaging on presentation and during follow up visits. Images were captured with the 3D OCT 2000 FA Plus optical coherence tomography (Topcon, Japan) between August 2012 - July 2015. Patients were reviewed every 2 months then every 6 months.

Results: In the main group anatomic result expressed by the reduction of number of hard exudates, decrease in central retinal thickness was achieved in all patients. Central retinal thickness in the main group decreased from mean 382 mkm to 250 mkm$\pm$ 30 mkm. Good functional result was achieved in 67 % of patients (70 eyes), where visual acuity increased from 0,5 to 0,7 $\pm$ 0,1. In the control group 85 % of patients had no anatomic neither functional changes. In 15 % of patients mean visual acuity slightly improved from 0,5 to 0,6 $\pm$ 0,05 with increase in central retinal thickness from mean 382 mkm to 320 mkm$\pm$ 30 mkm due to better compensation of the main disease.

Conclusion: Fenofibrate in diabetic patients diminishes number of hard exudates and macular edema, improves visual acuity thus decreasing the risk of DR progression and reducing the necessity of laser treatment.

PAEDIATRIC OPHTHALMOLOGY and STRABISMUS

PERSISTENT OBSCURATIVE PUPILLARY MEMBRAINE. SURGERY.

Prof. Bobrova N.F.
Pediatric Ophthalmopathology Department, SI "The Filatov Institute of Eye Diseases and Tissue Therapy of AMS of Ukraine", Odessa, Ukraine

Congenital iris mesodermal tissue malformation in the form of persistent pupillary membrane (PPM) consists of remains of the tunica vasculosa lentis front part, vascular structure feeding lens in utero.
Purpose: save transparent lens during obscurative pupillary membrane removal intimately connected with anterior capsule.
Material and methods: 5 children 10-24 mo/o (ave 14,0±0,21mo/o) with dense obscurative PPM closely connected with anterior lens capsule were operated. Visual acuity in all children was reduced to light perception – 0,02. IOP was normal. Axial length was equal with pair healthy eye.
Results: Dense central PPM were gently separated from lens capsule using dispersive viscoelastic and removed with vitreal microforceps keeping anterior lens capsule integrity without its breaking. The postoperative period proceeded without complications. Lens restored its transparency, optic axis became clear. Visual acuity improved to 0,2-0,4 and became similar to healthy eye.
Conclusion: Delicate microinvasive removal of PPM intimately connected with anterior lens capsule allows to preserve lens transparency, save its accommodation, which is the most important function of the child's eye, renew visual axis clarity and achieve stable visual improvement with high-grade rehabilitation of pediatric patients.

THE INFLUENCE OF REFRACTIVE THERAPY ON TEAR BREAK-UP TIME IN PATIENTS AGED 7-19 YEARS

Eugen Bendelic, Bilba Rodica, Coşulă Cristina
Medical Centre "Oculus prim", Chisinau

Refractive therapy is one of the most effective contemporaty methods of treatment and prophylaxis of the progression of myopia.
Aim: to evaluate the influence of refractive therapy on tear break-up time (NITBUT) in patients aged 7-19 years during a period of 36 months.
Method: Clinical prospective study, that included 80 eyes in patients aged 7-19 years with mild or moderate progressive myopia (mean -2,54±2,22 D). The treatment consisted of wearing night lenses for 6 to 8 hours during the night for 36 months. The NITBUT index was assessed before treatment, after 1, 7 and 14 days, 1, 3, 6, 12, 24 and 36 months of therapy.
Results:In patients that applied night lenses over 36 months the NITBUT index remained practically unchanged during the study, the difference between the minimum and maximum values being statistically insignificant ($p > 0.05$): 9.52±0.22 seconds before treatment and 9.92±0.25 seconds after 36 months, respectively.
Conclusion: Refractive therapy does not influence the tear break-up time in patients aged 7-19 years during a period of 36 months.

PEDIATRIC ORBITAL DERMOID CYSTS – CLINICAL STATE AND SURGICAL TREATMENT

Tronina S.A., Bobrova N.F.
Pediatric Ophthalmopathology Department, SI "The Filatov Institute of Eye Diseases and Tissue Therapy of AMS of Ukraine", Odessa, Ukraine

Orbital dermoid cysts belong to choristomas – tumours, originated from the aberrant primordial tissue.
Purpose: To analyse clinical state and surgical treatment results of pediatric orbital dermoid cysts.
Matherial and methods. 33 children aged 3-14 years with congenital orbital dermoid cysts were under observation. Superficial lesions of preseptal localization were observed in 75,7 %, cysts ocupied deep parts of the orbit - in 24,3 %. The clinical state of superficial and deep dermoid cysts were essentially differ. Superficial lesions characterized by rather small size (12-25 mm), sometimes eyelid deformation development, no influence to visual functions. Deep orbital dermoid cysts distinguished by proptosis, eye fissure displacement, significantly bigger size, reached 35-45 mm, visual acuity worsening.
CT and MRI scan allowed to specify topographical features of the cyst and changes of surrounding tissues. The indications to surgical treatment were: progressive growth of superficial cysts, visual functions worsening, expressed displacement of eye fissure, proptosis - in deep localization. The technique of operation consists in total cyst removal with capsule integrity preservation. Deep localization required extensive orbital intervention.
Results: Good functional and cosmetic outcomes were achieved in all cases, especially demonstrative in group of deep localized cysts: the proptosis elimination, normalization of eye fissure position and complete asymmetry reduction were marked. Improvement of visual functions was noted as a result of orbital structures compression removal.
Conclusion: Superficial dermoid cyst is a congenital orbital pathology, requiring surgery in cases of progressive growth and sizes witch cause eyelids deformation. The principal approach is maintaining high cosmetic requirements and total removal within healthy tissues. Deep orbital dermoid cysts characterized by special clinical state, demanding more thorough preoperative examination with purpose of differential diagnosis with other orbital lesions, in distinction from superficial cysts, require performing "big" orbital surgery with individual approach for every case.

THE DIFFERENCE BETWEENTHE INFLUENCE OF PHYSIOTHERAPY AND REFRACTIVE THERAPY ON SPHERICAL EQUIVALENT AND ANTERO-POSTERIOR AXIS GROWTH IN CHILDREN AGED 7-16 YEARS

Eugen Bendelic, Bilba Rodica, Coșulă Cristina
Medical Centre "Oculus prim", Chisinau

Contemporary myopia progression diagnosis is based on the values of spherical equivalent and antero-posterior axis growth. Phisyotherapy and refractive therapy are two methods used to prevent further progression of this eye condition.
Aim: to evaluate the difference between the influence of physiotherapy and refractive therapy on spherical equivalent (SE) and antero-posterior axis (APA) growth in children aged 7-16 years during a period of 36 months.
Method: Clinical prospective study, that included 80 eyes in children aged 7-16 years with mild or moderate progressive myopia (mean -2,50±2,24 D), 50% of which were treated with physiotherapy, 50% - which applied refractive therapy.
Results:In children with mild myopia, after three years of physiotherapy, SEvalue increased by 1.4 times (from -1.54 ± 0.08 Dup to -2.08 ± 0.13 D; $p < 0.001$). After 3 years of refractive therapy,

SEvalue increased by 1.1 times (from -1.47 ± 0.08 D up to -1.68 ± 0.13 D; p> 0.05). The differences between both groups were statistically reliable (p <0.001). In children with moderate myopia, after three years of physiotherapy, SE value increased by 1.3 times (from -3.75 ± 0.21 D up to -4.71 ± 0.26 D; p < 0.001) compared to therapy refractive, where SE increased by 1.1 times (from -3.8 ± 0.21 D up to -4.3±0.26 D; p <0.05). The differences between the data from both groups were statistically reliable (p <0.001). In children with mild myopia, after three years of physiotherapy treatment, AAP value increased from 24.0 ± 0.08 mm up to 24.24 ± 0.13 mm (p <0.05) compared with refractive therapy, where the same index increased from 23.92 ± 0.08 mm up to 24.0 ± 0.13 mm (p> 0.05). The differences between groups are statistically reliable (p <0.01). In children with moderate myopia, after three years of physiotherapy, AAP value increased from 24.7 ± 0.21 mm up to 25.08± 0.26 mm (p <0.05). In patients who applied refractive therapy, AAP value increased from 24.74 ± 0.21 mm up to 25.04 ± 0.26 mm (p> 0.05). The differences between groups are statistically reliable (p <0.01).

Conclusion: Both, physiotherapy and refractive therapy stop the progression of myopia in children aged 7-16 years, but the refractive therapy shows statistically better results in comparison (p<0.001).

THE INFLUENCE OF REFRACTIVE THERAPY AND PHYSIOTHERAPY ON THE EVOLUTION OF YEARLY MYOPIA PROGRESSION GRADIENT IN CHILDREN AGED 7-16 YEARS

Eugen Bendelic, Bilba Rodica, Coșulă Cristina
Medical Centre "Oculus prim", Chisinau

Refractive therapy is one of the most effective contemporaty methods of treatment and prophylaxis of the progression of myopia in children. A combination with physiotherapy has been proven to benefit the result even further.

Aim: to evaluate the evolution of yearly myopia progression gradient by spherical equivalent (YMPS) and eye globe antero-posterior axis length (YMPA) under combined treatment with refractive therapy and physiotherapy.

Method: Clinical prospective study, that included 80 eyes inpatients aged 7-16 years with mild or moderate progressive myopia (mean -2,52±2,25 D). The treatment consisted of 3 years of refractive therapy combined with physiotherapy (electropuncture and cilliary muscle laser-stimulation during 10 days every 3 months).

Results:In patients aged 7-16 years andmild myopia YMPSdecreaseddown to 4.7% (0.04±0.01D; p<0.001) from baseline (0.86±0.12D) after 3 years of treatment. In patients aged 7-16 years andmoderate myopia YMPS has reduceddown to 1.7% (0.02±0.01D; p<0.001) from baseline (1.28±0.22D) after 3 years of treatment. In patients aged 7-16 years andmild myopia YMPA decreased down to 2.9% (0.01 ±0.01 mm; p<0.001) from baseline (0.34±0.08 mm) after 3 years of treatment. In patients aged 7-16 years and moderate myopia YMPA has reduceddown to 1.9% (0.01±0.01; p<0.001) from baseline (0.51±0.12 mm) after 3 years of treatment.

Conclusion: Refractive therapy combined with physiotherapy reduces statistically significant the yearly myopia progression gradient by more than 95,0%.

„SLEZA-VIT" USE IN PEDIATRIC OPHTHALMOLOGY

Adriana Griţco, Elena Chisleacova, Alina Ogor
Ophthalmology, "Promed" Medical Center, Chişinău, Moldova

The actuality: Decreased visual acuity in children is a major impediment in their education and its future, and in the same time - the normal development of a society. In childhood, vision cover 80% of the learning process, therefore, detecting ophthalmic diseases that cause low vision is essential. One preschool child from 20 children presents a disturbance of vision. By diagnosing the ocular disease in its earliest stages, it is assured the therapy success. The progression of myopia presents a major pathology in modern ophthalmology. Its consequences can cause invalidity in 10- 20% and has the 2nd place in children disability structure. According to recent studies, in the sclera and internal coats of the eye, develops a dystrophic process of oxidative stress due to free radicals, which cause damage to cell membranes and disrupts metabolic processes. These pathological processes could be interrupted by normalizing metabolism of vitamins, microelements, carotenoids and anthocyanosides. "Sleza-Vit" present a complex of vitamins C, B1, B2, B6, E, A; microelements: zinc and selenium, chromium, Cu; carotenoids, lutein, zeaxanthin and anthocyanosides of bilberry extract.
Purpose: Evaluation of "Sleza-Vit" effectiveness in the prophylaxis and treatment of refractive errors in children.
Methods: The study included 73 patients, 3 groups: I st group - children who were treated with physiotherapy combined with "Sleza-Vit" use, II-nd group - physiotherapy treatment without "Sleza-Vit" use, III-nd group - children without refractive errors, but aggravated family history (at least one person), which used "Sleza-Vit" with prophylactic purpose. To study the product action on visual functions were used the following examinations: visual acuity, refractometry, the measurement of the accommodative volume, eye biometry, biomicro- and ophthalmoscopy before and after treatment over 1, 6 months.
Results: Visual acuity increased by 0.12 in group I, in group II - 0.09, in group III visual acuity remained within the norm. The drug was well tolerated by all children; adverse effects and allergic reactions have not been mentioned. Subjectively, patients mentioned the image quality improvement, clarity, contrast and reduction of eye fatigue.
Conclusions: nano-capsulation technology of "Sleza-Vit" allowed: the preservation of unstable components, bioactive substances and vitamins; release in certain sections of the gastrointestinal tract, has the effect of defending their components, which ultimately, provides prolongation of basic treatment action visual functions and stabilization of visual functions.

REDUCING THE RISK OF OPHTHALMOLOGICAL DISEASES AT THE CHILDREN RESIDENTIAL INSTITUTES IN THE COUNTRY

Lopata Iulia, Meresevskaya Oxana, Babanskaya Natalia, Pugacicova Gabriela, Filimonenco Elena
Eye care centers "OpticLux"

Background: Given is to provide qualified eye screening of children from 6 to 16 years old in special institutions to diagnose any ocular pathologies and visual disorders as well as vision correction necessity and treatment.
Methods of screening were performed in 34 children specialized state institutions to detect ocular pathology. There were 2860 children undergoing eye screening.
Results: Ocular pathology detected in 1338 (46.8%) cases. Total primary eye pathology detected in 692 (51.7%) cases. Eye affects were in 126 (100%) cases in the institutes for blind children and children with visual disorders. Very high incidence of eye diseases were in the group of children

with mental disabilities (group of children multiple pathologies characteristic) - 495 (94.1%) cases. High morbidity by eye diseases - 101 (45.1%) children were in the group of children with deafness. Accompanying diseases occurred in 2094 (73.2%) children.
It is noted, that in the group of children with low morbidity by general diseases - 6.1%, ocular diseases were found more frequently, being in 167 (31.9%) cases of 523 children screened, which is contradicted expectations.
Conclusions: Presenting eye pathology evaluation among children in specialized state institutions allowed us to conduct the prevention and treatment of ocular pathology.

THE SYMPTOM IS DIPLOPIA. BUT WHAT'S THE DIAGNOSIS? (CASE PRESENTATION)

Paduca Ala, Inga Sorbalo, Maria Iacubitchii
State University of Medicine and Pharmacy "N. Testemitanu", Chisinau, Republic of Moldova

Introduction: Diplopia is often the first manifestation of many systemic disorders, especially muscular or neurologic processes. An accurate, clear description of the symptoms and a clear and comprehensive medical history is critical to appropriate diagnosis and management.
Case presentation: A 37-year-old woman presented at our Ophthalmology department for examination in May 2015 with complains of binocular diplopia lasting about 10 years. Onset of diplopia - from 2005 (the diplopia was only in left gaze). She denied any trauma and she had been treated during this period by neurologist (because diplopia had been considered as a neurological condition) and even operated in 2006 by neurosurgeons (timus extirpation (mieloma)) but after surgery the diplopia increased and in about 1 year she noticed the presence of diplopia in all gazes (but smaller in right gaze). Ocular examination: Vis OU -20/20 s.c. Rx. : OD cyl -0,25 ax 90: OS cyl -0,5 ax 85. Biomicroscopic and ophthalmoscopic examination - normal. Ortoptic examination: PCT- exo deviation -18DP with + VD -28DP and V pattern. Ocular motility – hiperfunction of IO Right Eye (+3). Excyclotropia, BHTT +. Binocular mixed diplopia (horizontal, vertical and torsional component). Abnormal head posture with face asymmetry - head turned and tilted towards the healthy side.
Dg. Strabismus sursumadductorius with decompensating exoforia. After first step of surgery: Maximal recession of IO Right eye on examination at the second day post-operatory the abnormal head position improved significantly and vertical deviation also. PCT exo 18 PD and +VD 6DP.
Conclusion: Diplopia is a symptom with many potential causes, both neurological and ophthalmological. Accurate diagnosis and appropriate plans of management can be achieved with careful history taking and a complete ophthalmological and orthoptic assessment which is mandatory besides the neurological one.

PSYCHOSOCIAL IMPACTS OF STRABISMUS IN ADULTS

Ala Paduca[1], Veronica Ziuziuchin[2], Maria Iacubițchii[2], Tatiana Magla[3]

[1]MD, PhD, Ophthalmology Department of State University of Medicine and Pharmacy "Nicolae Testemițanu", Republic of Moldova

[2]Resident Ophthalmology Department of State University of Medicine and Pharmacy "Nicolae Testemițanu", Republic of Moldova

[3] Doctor, Ophthalmology Department of Republican Clinical Hospital

Purpose: To evaluate the psychosocial implications of strabismus in the adult population and the psychosocial impact of surgical correction

Method: A number of 63 patients older than 18 years were questioned using HROL 20 questionnaire to determine the psychosocial impact of strabismus on the person.

Also a Medline search (1960-2014) was conducted to identify psychosocial implications of strabismus, the quality of life employment/employability effects, its effects on employment, adaptation, stress, depression social support/social isolation/social marginalization, interpersonal relations, friends, and peer group and the impact of surgical correction in strabismic adults. The search was limited to adults older than 18-years, and studies published in English and French.

Result: Strabismus was shown to have negative psychosocial functioning and employability both from patients' and public perceptions. Surgical correction was associated with long lasting improvement in psychological and social functioning.

The results were in relation to age: the preoperative lowest quality of life had patients aged up to 20 years (its level was of 47.5 unities). However, postoperative quality of life increased the most in this particular age group (its level achieved 78.75 unities).

Analysis of results according to sex revealed that preoperative more affected was female (their quality of life was 51.6 unities, in male it was 71.04 unities) and postoperative better results was in male (they achieved 95 unities).

Analyzing the responses of patients according to motor situation, we found that most affected preoperatively are patients with convergent strabismus (54.4 unities via 65.9 unities in patients with divergent strabismus). Postoperative results do not depend on motor situation.

Test results depended on visual acuity: quality of life in patients with amblyopia (46.25 unities) is lower than in those with izoacuity (63.18 unities) both pre- and postoperatively.

Also results depended on the remaining angle: postoperative quality of life increased in orthotropic patients (with 23.1 unities). By the time in patients with residual postoperative angle, quality of life changed less (with 17.75 unities).

Conclusion: Strabismus is not only a functional problem, it also influences all aspects of patients` life and the surgical treatment improves their quality of life greatly. The negative impact of strabismus on the social, psychological, and economic status should be considered as part of the therapeutic indication for surgical correction of strabismus in adults.

NEUROOPHTHALMOLOGY

DIAGNOSIS AND MONITORING OF MULTIPLE SCLEROSIS: THE VALUE OF OPTICAL COHERENCE TOMOGRAPHY (CLINICAL CASES)

Pavlovschi Ecaterina[1], Borovic Djina[2]
[1]Department of Ophthalmology, State University of Medicine and Pharmacy „Nicolae Testemiţanu", Chisinau, Republic of Moldova
[2]Ophthalmic Surgery Center «Ovisus», Chisinau, Republic of Moldova

Aim: of the study is to demonstrate the fact that based on the results provided by OCT can be diagnosed and monitored multiple sclerosis.
Material and Methods: The authors present clinical cases of 4 patients, aged between 23-35 years old, who came to the Eye Surgery Center "Ovisus" with following complaints: a gradual decline of the visual acuity (VA) or the appearance of a mist over eyes. In the visual field was mentioned a decrease in the central retinal sensitivity, detected by the computerized perimetry. At biomicroscopy, the anterior and the posterior segment is without any pathologies. In anamnesis, is attested the appearance of the paraesthesia in the fingers and feet, unsteadiness when walking and vertigo. The consult performed by other specialists didn't establish any specific diagnosis. Within the center was performed the OCT.
Results: After performing the OCT was concluded a pronounced thinning of the macular region at the scanning of the ganglionar layer, while the retinal profile was preserved. At the scanning of the optic disc papilla was found a thickening of the nerve fibers in the superior-temporal sectors. The changes suggested us a pathology of the nervous system with a further indication for the neurologist consultation. After a complete neurological diagnosis, including a MRI of the brain (that showed a picture characteristic for a demyelinating process) all of the patients were diagnosed with multiple sclerosis.
Conclusion: 1.OCT is a simple and fast examination, representing a new tool to characterize the demyelination process. It can be used to detail the changes in the retina in patients with multiple sclerosis (MS) and could prove useful in evaluating and creating of new therapies. 2. OCT can detect subtle changes in the RNFL and in the macula over time, correlating with the clinical data and parameters obtained at MRI.

EVALUATION OF PHOTOPHOBIA IN MIGRAINE PATIENTS

Şcerbatiuc Cristina, Bendelic Eugen, Moldovanu Ion
Department of Ophthalmology and Neurology, State University of Medicine and Pharmacy "Nicolae Testemiţanu", Moldova.

Migraine is the most common neurologic disorder causing photophobia, which is one of the major diagnostic criteria for migraine according to the International Classification of Headache Disorders .
Up to 80% of migraine patients experience photophobia during an attack. Photophobia is an abnormal perceptual sensitivity to light experienced by most patients with migraine during and, also, between attacks. Drummond showed migraineurs were more light sensitive both during and between migraine attacks compared with non-migraine controls. Vanagaite et al. reported that patients with migraine experience increased light sensitivity to progressively increased amounts of light during and between headache episodes compared with controls.

Objective: To search the wavelength of light that patients with migraine headache find uncomfortable between attacks. To determine the effect of tinted lenses on the photophobia in migraine patients.
Methods: We examined the discomfort threshold to light of low, medium, and high wavelengths in a group of patients with migraine (n=50), and healthy controls (n=50). A modified slit-lamp chin rest, light meter, fluorescent light, 5 types of chromatic lenses were used to measure light sensitivity thresholds.
Subjects were seated in front of calibrated light source. The intensity of the light source was increased gradually until the patient reported photophobia. The intensity of the light source was then measured with light meter. Procedure was performed first with no chromatic lens and then with 6 different chromatic lenses, each blocking specific wavelengths of the visible spectrum. The subject was then asked which lens provided the best improvement of photophobia. Objective measurement of light intensity tolerated and subjective assessment of photophobia were obtained for each chromatic lens tested.
Results: The results indicate that the migraine group had significantly lower discomfort thresholds at the low (P .021) and high (P .074) wavelengths compared with control group. With the medium wavelength, the control group had significantly higher discomfort thresholds than the migraine (P .001); With unfiltered (white) light, the migraine group had lower discomfort threshold then the control group (P .006). Lenses 4 and 5 allowed migraine patients to tolerate a significantly higher intensity of light when compared with no lens (P =0.02, P=0.007, respectively).
Conclusions: There were significant differences between migraineurs and healthy controls in the wavelengths that are uncomfortable between attacks. The symptoms of photophobia in migraineurs patients can be reduced significantly with photochromatic lenses. Yellow and greenlenses allowed to migraine patients to tolerate a significantly higher intensity of light and provided the best improvement of photophobia. Physicians who care for patients with migraine should consider using tinted lenses to relieve symptoms of photophobia in this patients.
Key words: migraine, photophobia, light, wavelength.

WHAT CAN THE OPTIC NEURITIS HIDE?

Rodica Sevciuc, Angela Corduneanu, Veronica Chisca, Virginia Gogu, Natalia Corduneanu,
IMSP IMU, Department of Ophthalmology, Chisinau, Rep. of Moldova

Optic neuritis is an ophthalmologic pathology, which is determined by various causes: demyelination, infection, inflammation, toxic, and it is evolving with the decrease of VA-recoverable in 75 % of cases, scotoma and loss of color vision for green and red. It mostly affects young persons (20-45 years), mostly women and very rare old persons.
The purpose of the study: To point out the necessity of interdisciplinary collaboration in order to establish the cause and further management of the disease.
Material and methods: We examined 3 young patients (2 female and 1 male) of– 22, 28 and 34 years, which had supported inflammatory neuritis. All patients complained of acute decrease of vision, without any obvious cause. One patient also has severe headache and ocular pain. Another patient presented convulsive seizures in the past (without the diagnosis of epilepsy). All the patients had a complete medical checkup, including MRI and CT.
Results obtained: First patient presented VA decreased till 0.02 and red/green color vision deficiency. It was also determined at ophthalmoscopy a visible swelling of the optic nerve at the affected eye. Cranial CT did not show any changes. MRI showed suggestive data of a cerebral demyelinating process specific for MS. At the second patient VA decreased till 0.1 and also had color vision deficiency. Ophthalmoscopy revealed that the optic nerve was swollen. The CT and MRI were without abnormal changes. After numerous investigation was diagnosed with chronic

psoriatic spondyloarthritis. VA improved at both patients. At the third patient VA- light perception, the optic disc was pink-pale, contoured, without any abnormal changes. The vessels were narrowed. CT was clear. He was diagnosed by the neurologist: "Retrobulbar neuritis, possible caused by a intracerebral demyelinating process, acute encephalomyelitis with pyramidal insufficiency on the right, convulsive syndrome in anamnesis". And he was referred to have a MRI, which revealed only few abnormalities due to venous angioma. Visual acuity improved till 0.5. After a period of time he came again with loss of vision till perception of the light, after a convulsive seizure caused by flashing lights, loud music. The optic disc had no abnormalities. And he was referred to have another MRI.

Conclusions: Even if the visual functions improves after ophthalmological treatment, additional investigations, consultation and collaboration with other specialists, is an important step for a complete recover and for the future management of the disease.

OPTIC NEURITIS (retrospective study)

Surguci Alina, M.D., Ph.D Paduca Ala
State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova.

Introduction: Optic neuritis is inflammation of the optic nerve. Symptoms are usually unilateral, with eye pain and partial or complete vision loss. Diagnosis is primarily clinical and treatment is directed at the underlying condition.

Purpose and Objectives: The purpose of the study is to make a retrospective study of patients hospitalized in the Department of Ophthalmology in the Republican Clinical Hospital with optic neuritis.

Materials and methods: They were studied the observation cards of patients admitted to the Ophthalmology Department of the Republican Clinical Hospital during the period 2010-2014, with optic neuritis. All patients underwent a standardized eye examination, consultations of specialists (otolaryngology, neurologist, dentist, rheumatologist, and therapist) and laboratory investigations.

Results: During 2010-2014, in the Department of Ophthalmology of the Republican Clinical Hospital were registered 15 cases of optic nerve disorders. Of the 15 patients: men - eight (53 %), women -7 (47 %), aged between 21 years and 81 years, with an average age of 35.3 years. 100 % of patients reported sudden decrease in visual acuity in the affected eye, eye pain, which feels worse with eye movement in 5 patients (33.3%), headache in 3 patients (20 %), Ophthalmologic exam showed the presence of dyschromatopsia, decreased pupillary light reaction in the affected eye and a visual field defect (scotoma (central or centrocecal) in 100% and papillitis in 8 patients (53,3%). After consultations specialists were highlighted: 6 patients (40 %) with chronic rhinitis ; 2 patients (13.3 %) with chronic pulpitis ; 3 patients (20 %) with imagistic data relevant for demyelinating lesions, investigated with CT and MRI.

Visual acuity in the affected eye at the time of hospitalization ranged between 0 and 0.4 with an average of 0.1. Visual acuity in the affected eye after treatment was registered between 0.2 and 1 limits with an average of 0.5. Basic treatment were: antibacterial - 100% of patients ; steroids - 10 patients (66.6 %) ; vitamin therapy (vitamins B and C groups) - 11 patients (73.3 %) , diuretics - 4 patients (26.6 %) , analgesics - 3 patients (20 %).

Conclusions: Optic neuritis is a disease of the optic nerve with a high degree of visual acuity impaired, which etiology in many cases is difficult to determine. Many cases of optic neuritis are associated with multiple sclerosis (MS), but optic neuritis can occur in isolation.

EXAMINATION METHODS

DIAGNOSTIC VALUE OF COLOR DOPPLER IMAGING IN INTRABULBAR TUMOR DIFFERENTIATING

Marta P. Wiącek, Monika Modrzejewska, Wojciech Lubiński
Department of Ophthalmology, Pomeranian Medical University, Szczecin, Poland

Aim of the study: We evaluated the diagnostic value of color Doppler imaging for differentiating malignant and benign intrabulbar lesions or melanoma and metastatic tumors.
Material and methods: We evaluated patients who had received color Doppler imaging (CDI) from 2011–2015 on the basis of suspicion of intrabulbar tumors. We graded each lesion as malignant (n=44) or benign (n=49). The final diagnosis of a malignant tumor was established based on histopathological examination (n=5) or consultation in a reference center (n=39). The following parameters were analized in CDI: localization, shape, echogenicity, regularity of the lesion surface, vertical and horizontal dimension, symmetrical incidence between the eyes, vascularization, blood flow type, amplitude, velocity, pulsatility, calcification or hipoechogenic areas presence within the tumor margins, exudate in vitreous body, echogenicity of vitreous body, retinal pigment epithelium schisis, posterior vitreous detachment, uvea infiltration, retinal detachment. We developed a logistic regression model for differentiating malignant and benign tumors. We divided the malignant tumor group into melanomas (n=28) and metastatic tumors (n=16). We used statistical analysis by logistic regression in order to evaluate the differentiating features of melanoma and metastatic tumors in CDI.
Results: We evaluated the malignancy of the tumor including three variables: surface, type of blood flow, and calcification presence. A regular surface and arterial blood flow were statistically important in the model ($p<0.05$). The odds ratio (OR) for variables was respectively 4.6 CI [1.5–13.6] and 9.4 CI [3.0–28.4]. The sensitivity of the model was found to be 84%, and the specificity was 78%. The model differentiating melanoma and metastatic tumors was built on two variables: vertical dimension and blood flow type. The OR for vertical dimension was 1.7 CI [1.1–2.8] ($p<0.05$). The sensitivity of the model was evaluated to be 86%, and the specificity was 56%.
Conclusions: CDI is a valuable diagnostic tool in intrabulbar tumor differentiation. We evaluated calcification presence, blood flow type, and surface regularity, which make it possible to establish with a high sensitivity the malignant type of the tumor. We also evaluated blood flow and vertical dimension, which were useful for differentiating melanoma and metastatic tumors, respectively.

FUNDUS AUTOFLUORESCENCE IMAGING IN OCULAR TOXOPLASMOSIS

Natalia Palarie[1], Tatiana Pasenco[2]
[1]*Ophthalmology Department, International Clinic, Orhei, Moldova*
Laboratory of Tissue Engineering and Cell Cultures, University of Medicine and Pharmacy "Nicolae Testemiţanu", Chisinau, Moldova
Laboratory of Endocrinology, University of Medicine and Pharmacy "Nicolae Testemiţanu", Chisinau, Moldova
[2]*Ophthalmology Department, State University of Medicine and Pharmacy "Nicolae Testemiţanu", Chisinau, Moldova*

Toxoplasma gondii is a leading cause of posterior uveitis in Moldova, manifesting as a focal posterior retinochoroiditis. Fundus autofluorescence (FAF) imaging is a noninvasive imaging method which provides additional information not obtainable with other imaging techniques or ordinary fundus examination.

Purpose: To study the fundus autofluorescence findings in patients with ocular toxoplasmosis at various stages of healing, and also to find out its role in monitoring the inflammation.
Methods: This study involved 29 eyes of 21 patients with ocular toxoplasmosis. Seven males and 22 females were included in the study. Age group ranged between 17 to 60 years. The mean visual acuity on presentation was 0,5. All patients had undergone standard ophthalmological examination, fundus imaging and autofluorescence imaging on presentation and during follow up visits. Images were captured with the 3D OCT 2000 FA Plus fundus camera (Topcon, Japan). All patients were evaluated at the Ophthalmology Department of International Clinic in Orhei in April 2014 - July 2015. Patients were reviewed every 2 weeks for two months then every month. Findings observed at presentation and during follow up visits was described.
Results: Out of the 29 eyes 11 eyes had reactivation of previous toxoplasma retinochoroiditis scar, 8 eyes had primary retinochoroiditis lesion, 5 eyes had toxoplasma neuroretinitis and 5 eyes had healed retinochoroiditis scar. All the active lesions were observed as poorly defined area of hyperautofluorescence corresponding to the active retinochoroiditis lesion in fundus imaging. As the lesion healed a well demarcated rim shaped area of hypoautofluorescence was observed surrounding the central hyperautofluorescence by 2-4 weeks. The hypoautofluorescence was found to be progressing in centripetal fashion, until complete disappearance of the central hyperautofluorescence between six to 20 weeks.
Conclusions: 1. Fundus autofluorescence can be used as an additional investigational tool in the diagnosis and management of ocular toxoplasmosis. 2. Fundus autofluorescence in eyes with retinochoroiditis reflects the changes in the outer retinal layers corresponding with the activity of the disease.

CONTACTOLOGY

SUCCESS OF CONTACT LENS PRESCRIBTION IN MOLDOVA

Lopata Iulia, Meresevskaya Oxana, Babanskaya Natalia, Pugacicova Gabriela, Filimonenco Elena
Eyecare centers "OpticLux"

Goal: Influence of Contact Lenses (CL) prescription at contactology in Moldova.
Methods: Experience of Eyecenters "OpticLux" (1994-2015) in Moldova shows switching the CL wearers to Silicon Hydrogels within last 3 years. There are 6954 follows up records of contact lens wearers today.
Results: Switching from the quarterly contact lenses wear to monthly wear we have 4172 (60%) patients and 1252 (18%) daily wear patients. There is a stately growth of silicone hydrogel CL wearers (5076 (73%) cases).
There is noticeable changing the picture of complications associated with CL wear also. If complications were discussed, previously, with bacterial and viral hyper papillary conjunctivitis, corneal neovascularization and erosion, today, CL problem more connected to the dry eye syndrome (in 3199 (46%) cases). In 765 (11%) cases of corneal changes (edema, changes of endothelium) occurred more frequently in continuous CL wear.
Decreased frequency of allergic reactions - in 417 (6%) cases, cleared by using new materials and last generation solutions. Developing the CL technologies allowed correcting astigmatism in 315 (4.5%) cases. Multifocal CL wear comes from 0 to 106 (1.5%) patients.
Conclusion: Prescribing to the new patients SiHy CL and switching the existing ones to the Silicon-Hydrogels, astigmatic and multifocal SiHy CL correction, with the last generation care solutions offer patients new opportunities to fulfill their requirements in the life quality.

ORTHOKERATOLOGY–PREVALENCE OF BENEFITS RELATIVE TO THE POSSIBLE RISKS

Adriana Grițco, Elena Chisleacova, Alina Ogor,
Ophthalmology, "Promed" Medical Center, Chisinau, R. Moldova

Orthokeratology (Corneal Refractive Therapy) - is a nocturnal correction method of refraction errors, especially progressive myopia in children, which results in clear vision throughout the day without the need of wearing glasses or other contact lenses.
Purpose: To mention the Orthokeratology benefits and highlighting the exaggerations about the risks of this treatment by ophthalmologists.
Method: 1. Literature analysis of the possible complications in Orthokeratology and myopia control.2. The retrospective study of patients who received at least 1 year orthokeratological lenses during 2006-2015.
Results: We analyzed 170 publications, which present studies of ocular changes made by orthokeratological treatment, i.e.: anatomy, biomechanics, ocular parameters, visual performance, ocular aberrations, compliance, side effects and myopia control. The findings confirmed that the use of OK-lens does not reduce corneal epithelial barrier function, reversible and selective changes corneal epithelial thickness slows the progression of myopia. To maintain healthy eyes, OK patients should follow doctor's recommendations and compliance with regular examinations dynamic.

The proper retrospective study included 349 patients, aged between 6-51 years, of which male - 112, female - 237. Summary period of treatment was 705 years. Evaluation of corneal complications presented: corneal infiltrates (completely reabsorbed by the drug treatment) - 9 cases, microbial keratitis (clinical diagnosis without laboratory confirmation) - 2 cases (maximum corrected visual acuity was not affected). The slowing of the myopia progression was noted in 75% of children and teenagers who were treated for at least 2 years.

Conclusions: Orthokeratology presents a noninvasive method, reversible, comfortable, with minimal risk of complications and a high chance of slowing the progression of myopia.

DIFFERENTS

OCULAR FILARIASIS

Cușnir Valeriu, Dumbrăveanu Lilia, Andronic Sergiu, Josan Elena
Ophthalmology Department, State University of Medicine and Pharmacy "Nicolae Testemițanu", Chisinau, Moldova

Aim: To evaluate the particularities of the diagnosis and treatment of ocular filariasis.
Method: Prospective study included 5 pacients with diagnosis ocular filariasis. The pacients were hospitalized and treated in the MCH „St. Trinity". Eye examinations included: visual acuity, ocular tonometry(Maklacov), biomicroscopy, gonioscopy, ophtalmoscopy, Goldman's lens exam, Volk's lens exam, photography of anterior and posterior segment, B-scan, serological tests: antibodis antifilariasis IgG/IgM, serum IgE; CBC; consultation of specialist in infections disease.
Result: 4 pacients were Moldovan citizens and one pacient was from Africa. Pacients' age ranged between 21 and 53 years old; 3 women and 2 men. In 4 cases the localization of filariazis was under conjunctiva, in one case was palpebral localization. All pacients prezented: headache, fever, insomnia, arthralgi, lymphangitis, allergic reactions. Ocular filariasis was surgically removed in all cases. The filaria was parasitological examined. Drug treatment with antiparasitic, corticosteroids and antiallergics.
Conclusion: Knowledge of ocular symptoms in pacients with filariasis damage and collaboration between ophthalmologists and specialist in infections disease are fundamentals in early diagnosis of ocular filariasis. Antihelmintic treatment associated with surgical removal of ocular filariaisi offers the chance to recover visual function and reduce visual disability.

FIREARM PERFORATING TRAUMA IN BOTH EYES: CLINICAL CASE

Eugen Bendelic[1], Angela Garaba[2], Angela Corduneanu[3], Maria Iacubițchii[4]
[1]Prof., PhD., Ophthalmology Department of SUMPh „Nicolae Testemițanu"
[2]Dr., Ophthalmology Department, Republican Clinical Hospital
[3]Assoc. prof., PhD., Ophthalmology Department of SUMPh „Nicolae Testemițanu"
[4]Resident, Ophthalmology Department of SUMPh „Nicolae Testemițanu"

Ocular trauma is the third most common ophthalmic indication for hospitalization in USA. About 5% of injuries reported in United States Eye Injury Registry database were powder gun related, and 6% were BB gun (type of air gun) injuries, males being more often affected. While a focused history and prompt ocular examination are essential to immediate management, patient education regarding safety precautions are mandatory.
The purpose: presentation of a case of ocular trauma by a air-gun in a 59- year-old male.
Used data was obtained from medical history, ophthalmological instrumental exam and paraclinical investigations: cranial and orbital computer tomography and ultrasonography of both eyes.
The result highlighted the need to assess the initial evaluation and to identify the characteristic and severity of ocular perforating injury in determining the optimal management.
As **conclusions** it can be told that the firearm trauma represents an emergency eye injury. The preoperative management is mandatory for an efficient treatment. The surgical approach is required in all types of firearm injuries, local and general antimicrobial and anti-inflammatory treatment prevents the post-traumatic complications.

NOTES ABOUT SALARY ADJUSTMENT LEGISLATION FOR HEALTH CARE SPECIALISTS

Bendelic Eugen, Cușnir Valeriu jr., Constantin Ețco

Actuality: Everybody avoid discussions about the legislation that contains permissions or obligations for the employer to extra pay the employee. It is a closed and very troublesome subject.
Aim: To make clear for everybody some legislative hot points from Moldavian legislation.
Material and method: We done the analysis of the Labor Code of Republic of Moldova nr154-XV from 28.03.2003. We selected some points from the Order of health ministry nr1490/672 from 29.12.2014 about the approval of methodological norms of national health insurance company, to be applied in 2015. The common decision of ministry of health (nr.01-3/1/13-1), national insurance company (nr.01/17-01) and medical syndicate "Sanatatea" (nr.04/001 from 02.01.2014), about the maximum amount of dispenses for employee's salary in Moldova medical institutions, will be short exposed.
Results and discussions: You can remark, in the labor code of the Republic of Moldova, more than one article that regulates the financial relations employer-employee. This way the articles 137, 138, 160, 170 when used together can help establish a healthy and rentable economic relation between the employer and the employee. Bonuses are delivered to the employee for work loudness, individual tariffs are established for big incomes, and individual work contract can be signed (with individual payment system applied).
Mandatory we have to read a nearby order nr1490.672 where we can easily find explication on employee salary formation, budgetary and extra budgetary hospital revenues formation, possible collaboration moments between the employee and the employer (pt.161, pt.164, pt.170). The hospital can also get extra revenues from high tech examinations (pt.171, pt.172), but he has the responsibility to offer all necessary condition for the employee to work safe, proper and equipped with all necessary equipment (pt.28).
The last point in the order is de novo about the financial stimulation of doctors that contributes to economic wellness of the institution (pt.187).
The decision done between the ministry of health, national insurance company and "Sanatatea" syndicate allow the hospital to give up to 55% of his budgetary or extra budgetary revenues to the doctors that generated this incomes.
Conclusions:

1. Yes, we have a doctor supportive legislation concerning salary increase methods.
2. The revenues and the relation employee–employer, depends on both collaborating.
3. The knowledge of the legal salary increase methods will help the doctors to increase their revenues.

PLATINUM SPONSOR

WORLD MEDICINE OPHTHALMICS

"Better Vision for a Better Life"

GOLD SPONSORS

oculus prim

Rompharm Company

Eyebright®

SILVER SPONSORS

UNITEDVISION BAUSCH+LOMB

ОАО «КИЕВСКИЙ ВИТАМИННЫЙ ЗАВОД»
Качество без компромиссов!
www.vitamin.com.ua

SPONSORS

Alcon medpark INTERNATIONAL HOSPITAL

VISUS CENTRUL DE CHIRURGIE OFTALMOLOGICE

Santen

FARMACIE ORIENT

UNIPHARM

EXPERTMED
EXPERTUL DUMNEAVOASTRA IN APARATURA MEDICALA

AO Centrul de Reabilitare Medico-Sanitară pentru Persoane cu Vedere Slabă "LOW VISION"
Lenses Grup

PARTNERS

European Society of Ophthalmology

ESCRS

EUROPEAN SOCIETY OF CATARACT & REFRACTIVE SURGEONS

International Agency for the Prevention of Blindness

"Better Vision for a Better Life"

AO Centrul de Reabilitare Medico-Sanitară pentru Persoane cu Vedere Slabă "LOW VISION"
Lenses Grup