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Naslov: Znanost u iskustvu ugode kod korištenja sistema za njegu kontaktnih leća s Polyquadom i Aldoxom
Autori: dr Jasmina Salopek Rabatic, dr Igor Petricek
Ustanova: KB Dubrava, KBC Zagreb

Cilj: Maksimalna sigurnost u funkciji prevencije moguće patologije pri njezi kontaktnih leća ne isključuje maksimalnu udobnost kod nošenja: zadovoljstvo pacijenata (udobnošću leće, kakvoćom vida obzirom na prosječne sate nošenja i na kraju dana) prati objektivne parametre koje bilježi oftalmolog na kraju zadanog perioda praćenja

Bolesnici i metode:

U 4 mjesecišnom periodu praćenja, prikupljeni su podaci iz 20 centara u Hrvatskoj (256 korisnika mekih silikon hidrogelnih kontaktnih leća). Korištena je Likertova 5 bodovna skala za procjenu zadovoljstva i ugode na kraju dana, kvalitete vida i prosječni broj sati dnevnog nošenja leća za svakog pacijenta. Objektivni oftalmološki pregled uključio je procjenu vidne oštchine, pregled na biomikroskopu i Lipcof test.

Uključivani su svi pacijenti – nosioci mekih kontaktnih leća- koji su dolazili na redovne preglede kontaktologa tijekom 4 mjeseca (od 1. siječnja do 30. travnja 2012.), kao novi korisnici tekućine za njegu kontaktnih leća sa sistemom Polyquad i Aldox, korisnici silicon hidrogel kontaktnih leća (različitih proizvođača)

Rezultati:

Odabrani su pacijenti na redovnim kontaktološkim kontrolama, kao i novi korisnici mekih kontaktnih leća (silikon hidrogel): svima je uključena nova tekućina za njegu kontaktnih leća s Polyquadom i Aldoxom. Na kontrolnoj posjeti nakon 15 dana evaluirani su objektivni znakovi i subjektivni pokazatelji zadovoljstva pacijenata novom tekućinom. Isključeni su pacijenti koji su produženo nosili leće i jedan sa znakovima alergije.

Subjektivno zadovoljstvo pacijenata na Likertovoj skali (1=nezadovoljan, 5= izrazito zadovoljan) : prosječna ocjena udobnosti na kraju dana 4,5; prosječna ocjena kvalitete vida 4,8; sveukupno zadovoljstvo otopinom (isključen slučaj alergije) 4,9. Prosječan broj dan sati nošenja leća u danu $16 \pm 2,5$ sati.

Zaključak:

Dezinfekcija, ovlaživanje i čišćenje leće su tri osnovna stupa procjene kvalitete tekućine za njegu kontaktnih leća, ali moraju uključivati i maksimalno zadovoljstvo pacijenta na početku i na kraju cijelodnevног

nošenja leće.

English

Title: Scientific Pillars of Comfort with Contact Lens Cleaning System containing Polyquad and Aldox

Authors: dr Jasmina Salopek Rabatic, dr Igor Petricek

Institution: KB Dubrava, KBC Zagreb

Aim: Based on how well the system prevents possible pathology in contact lens care solution does not exclude maximum comfort: patient satisfaction (lens comfort, vision quality regarding median wear hours and at the end of the day) follows objective parameters noted by ophthalmologist at the end of the follow up period.

Patients and methods:

Through the 4 months follow up period , we collected data from 20 cities in Croatia (256 soft contact lens wearers). Likert 5 point scale scale was used to determine patient satisfaction with comfort at the end of the day, quality of vision, and median hours of daily wear for each patient was noted. In objective measurement during regular ophthalmologists visit noted: VA, biomicroscope exam, Lipcof.

Included were all patients who came for regular contact lens fit visit in 4 months period (1st January through 30th April 2012), and used contact lens solution with Polyquad and Aldox system, fitted with silicon hydrogel contact lenses (different manufacturers).

Results:

After first inclusion visit and contact lens new or control fit, patients were switched to new contact lens solution with Polyquad and Aldox system, and scheduled for control visit after 15 days. Patient satisfaction was measured by Likert 5 point scale(1=no satisfaction; 5=excellent satisfaction) : Median score of comfort at the end of the day was 4,5 . Median score of patient satisfaction with visual quality was 4,8. Allaround satisfaction with cleaning solution (excluding 1 allergy case) was 4,9. Median hours of daily contact lens wear was 16 hours ($\pm 2,5$ hours). Excluded overnight usage.

Conclusion:

Scientific pillars of comfort are disinfection, wetting , cleaning through optimized contact lens experience of each contact lens wearer- patient satisfaction at the end of the day.

Naslov: Retinalna arterijalna makroaneurizma

Autori: Edi Ladavac

Ustanova: Očni odjel Opća bolnica Pula

Cilj: prikaz kliničke slike

Bolesnici i metode:

pacijenti liječeni na očnom odjelu

Rezultati:

Retinalna makroaneurizma predstavlja jednu relativno rijedu vaskularnu patologiju koja u pravilu dovodi do izlječenja bez terapije. U ovom radu je prikazana klinička slika, tok bolesti, diferencijalna dijagnoza i metode liječenja kod pacijenata koji su praćeni na našem odjelu.

Zaključak:

U zaključku se potvrđuje mišljenje da se retinalna arterijalna makroaneurizma ne treba agresivno liječiti kod većine slučajeva

English

Title: Retinal arterial macroaneurysm

Authors: Edi Ladavac

Institution: General Hospital Pula, Eye department

Aim: clinical picture of disease

Patients and methods:

The patients who were followed at our department

Results:

Retinal arterial macroaneurysm represents a relatively less common vascular pathology that usually leads to healing without treatment. The clinical picture, course of disease, differential diagnosis and treatment methods for patients who were followed at our department is presented.

Conclusion:

In conclusion, it confirms the view that the retinal arterial macroaneurysm should not be treated aggressively in most cases.

Naslov: Koncentracija IL-12 u očnoj vodici i serumu u pacijenata s dijabetičnom retinopatijom

Autori: Antonela Gverović Antunica, Ksenija Karaman, Ljubo

Znaor, Ada Sapunar1Vesna Buško, Velibor Puzović

Ustanova: Opća bolnica Dubrovnik Očni odjel

Cilj: Cilj ove studije je odrediti koncentraciju citokina IL-12 u serumu i očnoj vodici u dijabetičara s retinopatijom i usporediti s dijabetičarima bez retinopatije, lasreiranim pacijentima i nedijabetičarima

Bolesnici i metode:

U ovu studiju uključeno je 76 ispitanika podijeljenih u četiri skupine: 23 dijabetičara s neliječenom retinopatijom, 17 dijabetičara s liječenom retinopatijom, 12 dijabetičara bez retinopatije i 24 zdrava kontrolna ispitanika.

Analizirana je koncentracija IL-12 u očnoj vodici i serumu.

Rezultati:

Uspoređujući koncentracije u očnoj vodici dobivena je statistički značajna razlika između skupina ($\chi^2(3,N=76)=27.137$; $p=5.5*10^{-6}$) s najvećom izmjerrenom vrijednosti IL-12 u skupini dijabetičara s neliječenom retinopatijom (12,40 pg/mL).

Nisu pronađene statistički značajne razlike u serumskim koncentracijama IL-12 između skupina ($F=0.405$, $p=0,750$).

Korelacijska analiza koncentracija IL-12 u serumu i očnoj vodici pokazala je linearnu asocijaciju između ove dvije varijable samo u ispitanika bez dijabetesa ($p=0,003$).

Zaključak:

Ova studija je, prema dostupnoj literaturi, prva dokazala značajno veću koncentraciju proučalnog citokina IL-12 u očnoj vodici kod bolesnika s neliječenom dijabetičnom retinopatijom u odnosu na dijabetičare s liječenom dijabetičnom retinopatijom, dijabetičare bez dijabetične retinopatije i zdrave ispitanike.

Kako se serumske koncentracije nisu razlikovale među ispitanim skupinama možemo s priličnom sigurnošću govoriti o njihovoј lokalnoj sintezi i sekreciji

English

Title: IL-12 concentrations in the aqueous humor and serum of diabetic retinopathy patients

Authors: Antonela Gverović Antunica, Ksenija Karaman, Ljubo Znaor, Ada Sapunar¹Vesna Buško, Velibor Puzović

Institution: Department of Ophthalmology, General Hospital, Dubrovnik,

Aim: The aim of this study is to determine the concentrations of IL-12 cytokine in serum and aqueous humor of diabetic retinopathy patients, and to compare these concentrations with the ones found in diabetic patients without retinopathy, diabetic patients with laser treated retinopathy and non-diabetic controls.

Patients and methods:

A total of 76 participants were enrolled in this study and classified in 4 groups: 23 diabetic patients with non-treated retinopathy, 17 diabetic patients with treated retinopathy, 12 diabetic patients without retinopathy, and 24 healthy control patients. Serum and aqueous humor samples were taken for the analysis of IL-12 concentration.

Results:

There was a significant difference between the groups in IL-12 concentrations in the aqueous humor ($\chi^2(3, N=76)=27.137$; $p=5.5*10^{-6}$) , with highest values measured in the non-treated diabetic retinopathy group (12,40 pg/mL). No significant differences in IL-12 serum concentrations between the groups were found ($F=0.405$, $P=0.750$). Correlation analysis of IL-12 concentrations in the serum and aqueous humor showed a linear association between the two variables only in non-diabetic patients ($P=0.003$).

Conclusion:

To the best of our knowledge, this is the first study to show a significantly higher concentration of pro-inflammatory cytokine IL-12 in the aqueous humor of non-treated diabetic retinopathy patients in comparison with diabetic patients treated for retinopathy, diabetic patients without retinopathy or with healthy individuals.

Because the serum levels of IL-12 did not differ considerably between the studied groups, it is plausible that this is due to its local production and secretion.

Naslov: Starenje i zaštitni aparat oka**Autori: Neda Stiglmayer****Ustanova: umirovljenik**

Cilj: razlikovati promjene izgleda od funkcionalnih ispada

Bolesnici i metode:

pregledni rad s primjerima različitih skupina i mogućnostima olakšavanja tegoba, odnosno metoda liječenje i uspostavljanje zadovoljavajuće funkcije

Rezultati:

učestalost u progresiji , te s time i značajniji funkcijski ispadi koji zahtjevaju složeni pristup i kombinaciju pristupa.

Zaključak:

Starenje je činjenično stanje, međutim prateće promjene mogu u potpunosti onemogućiti funkciju struktura, pa je naša intervencija potrebna i neophodna.

English

Title: Involutional changes in periocular region

Authors: Neda Stiglmayer

Institution: retired

Aim: is to differ between loss of youth and loss of normal or rather normal function.l

Patients and methods:

Involutional changes can be divided in two groups: intrinsic aging and enviromental aging. Both kinds of aging can interfering with proper function of the lids and lacrimal system.In such a cases with proper intervention function can be restore.

Results:

even in rather old person with pronounced changes in periocular region with proper choice of the reconstruction function of the eyelids and lacrimal system will be satisfying

Conclusion:

Aging of the hole population is a fact and our care for quality of life include treatment of the pronounce aging of the periocular region

Naslov: NMO-IgG antitjela u dijagnostici optičkog neuritisa

**Autori: Bojić L, Galetović D, Kovačić Ž, Rogošić V, Lešin M,
Matijaca M, Cerovski B.**

**Ustanova: Klinika za očne bolesti, Klinika za neurologiju KBC
Split, Split, Klinika za očne bolesti KBC Rebro Zagreb**

Cilj: Cilj rada je naglasiti važnost ispitivanja neuromyelitis optica (NMO) - imunoglobulinskih G (IgG) antitijela u bolesnika s optičkim neuritisom refrakternim na kortikosteroidno liječenje.

Bolesnici i metode:

U radu su opisana dva bolesnika sa dijagnozom optičkog neuritisa i izazito lošom oštrinom vida. Primjenjena pulsna terapija kortikosteroidima nije imala povoljan učinak u poboljšanju vidne oštchine. Provedeno je laboratorijsko testiranje krvi i cerebrospinalnog likvora na NMO-IgG antitjela.

Rezultati:

Magnetska rezonanca mozga kod oba bolesnika je bila u granicama normale. Krvni serum i cerebrospinalni likvor je bio pozitivan na NMO-IgG antitjela. Magnetska rezonanca cervikalne i torakalne kralježnice je pokazala lezije leđne moždine kod više od tri vertebralna segmenta. Dijagnoza neuromyelitis optica ili Devic-ove bolesti je postavljena. Liječenje plazmaferezom i imunosupresivima je rezultiralo poboljšanjem vidne oštchine koja se dalje nije mijenjala.

Zaključak:

Ispitivanje NMO-IgG antitjela je veoma važno u ranom prepoznavanju optičkog neuritisa kod neuromyelitis optica ili Devic-ove bolesti od onog kod multiple skleroze, naročito u slučajevima optičkog neuritisa gdje je pulsna terapija kortikosteroidima bila bez učinka.

English

Title: The role of NMO_IgG in distinguishing the type of optic neuritis

Authors: Bojić L, Galetović D, Kovačić Ž, Rogošić V, Lešin M, Matijaca M, Cerovski B.

Institution: Eye Department, Neurology Departement Clinical Hospital Center Split Split, Eye Department Clinical Hospital Center Rebro Zagreb

Aim: To emphasize the importance of neuromyelitis optica (NMO)-immunoglobulin G (IgG) testing in patients with typical optic neuritis refractory to steroid treatment.

Patients and methods:

Two patients were evaluated with optic neuritis refractory to steroid therapy and poor visual acuity; they were tested for NMO-IgG antibodies.

Results:

Brain magnetic resonance was normal in both patients. The serum and cerebrospinal fluid were positive for NMO-IgG. Magnetic resonance imaging of the cervical and thoracic spine revealed lesions longer than three vertebral segments and the diagnosis of neuromyelitis optica or Devic disease was confirmed. Treatment with plasma exchange and immunosuppressive therapy resulted in marked improvement of visual acuity. This improvement was sustained.

Conclusion:

The testing for NMO-IgG antibodies is very important for distinguishing optic neuritis in neuromyelitis optica or Devic disease from multiple sclerosis in cases of optic neuritis refractory to steroid treatment.

Naslov: Odnos između dijabetične retinopatije i periferne polineuropatije

Autori: Ljubo Znaor, Milan Ivanišević, Dijana Vučina

Ustanova: Klinika za očne bolesti, KBC Split

Cilj: Dugotrajni dijabetes izaziva mnogobrojne kasne komplikacije pa tako i dijabetičnu tripatiju: retinopatiju, nefropatiju i neuropatiju.

Prethodna istraživanja su pokazala da se dijabetična nefropatija javlja u oko 35% bolesnika s dijabetesom tip 1 te u oko 5 do 10% bolesnika s dijabetesom tip 2, dok za dijabetičnu perifernu polineuropatiju ima vrlo malo podataka. Cilj ove studije je bio istražiti učestalost dijabetične periferne polineuropatije kod bolesnika s dijabetičnom retinopatijom te njihovu povezanost.

Bolesnici i metode:

U studiju je bilo uključeno 30 bolesnika s dijabetesom tip 2 koji su se javili u Ambulantu za bolesti mrežnice (Klinika za očne bolesti, KBC Split) zbog dijabetične retinopatije. Bilo je 12 žena i 18 muškaraca.

Svim uključenim bolesnicima osim osnovnog oftamološkog pregleda je napravljeno snimanje očne pozadine, elektromioneurografija (EMNG) te osnovni neurološki pregled.

Rezultati:

Blagu dijabetičnu neproliferativnu retinopatiju je imalo 9 (30%), umjerenu dijabetičnu neproliferativnu retinopatiju 8 (26,67%), tešku dijabetičnu neproliferativnu retinopatiju 5 (16,67%) i proliferativnu dijabetičku retinopatiju 8 (26,67%) bolesnika. EMNG testiranja su pokazala da 80% bolesnika s dijabetičnom retinopatijom je imao neki oblik dijabetične polineuropatije. Našli smo statistički značajnu pozitivnu korelaciju između stupnja dijabetične retinopatije i težine dijabetične polineuropatije (Spearman rank order correlation=0,82).

Zaključak:

Ova studija je potvrdila da većina bolesnika s dijabetičnom retinopatijom ima i neki stupanj dijabetične polineuropatije te da stupanj dijabetične retinopatije pozitivno korelira sa stupnjem polineuropatije. To nas još jednom podsjeća na sustavni karakter dijabetičnih promjena čije liječenje mora biti rezultat pravovremene i koordinirane suradnje više subspecijalnosti.

English

Title: Relation between diabetic retinopathy and peripheral polyneuropathy

Authors: Ljubo Znaor, Milan Ivanišević, Dijana Vučina

Institution: Department of Ophthalmology, University Hospital Centre Split

Aim: Long lasting diabetes causes many late complications including diabetic triopathy: retinopathy, nephropathy, and neuropathy. Previous research showed that diabetic nephropathy develops in 35% of patients with diabetes type I and in 5 to 10% of patients with diabetes type II, while there are scarce data about the prevalence of peripheral polyneuropathy. The aim of this study was to determine the prevalence of diabetic peripheral polyneuropathy in patients with diabetic retinopathy and their correlation.

Patients and methods:

Thirty patients with diabetes type II who presented in Retina Outpatient Department (Department of Ophthalmology, University Hospital Centre Split) for diabetic retinopathy were enrolled in this study. We enrolled 12 women and 18 men and they all had general ophthalmological examination, fundus photography, and electromyoneurography (EMNG) along with basic neurological examination.

Results:

Mild nonproliferative diabetic retinopathy was found in 9 (30%) patients, moderate nonproliferative diabetic retinopathy in 8(26,67%) patients, severe nonproliferative diabetic retinopathy in 5 (16,67%) patients, and proliferative diabetic retinopathy in 8 (26,67%) patients. EMNG testing showed that 80% of patients with diabetic retinopathy had some degree of diabetic polyneuropathy. We have found significant positive correlation between grade of diabetic retinopathy and severity of diabetic polyneuropathy (Spearman rank order correlation = 0,82).

Conclusion:

Present study confirmed that majority of patients with diabetic retinopathy have some degree of diabetic polyneuropathy and that the grade of diabetic retinopathy positively correlate with degree of polyneuropathy. That confirms once more the systemic character of diabetic damages whose treatment requires timely multispecialty treatment.

Naslov: Utjecaj UV zračenja na oksidativno oštećenje leća štakora in vitro

Autori: Slaven Balog, Zlatko Balog, Ratimir Klepac

Ustanova: Klinička bolnica Osijek i Medicinski fakultet Zagreb, Hrvatska

Cilj: UV zračenje kroz niz godina oslobađa slobodne radikale u lećama ljudu i izaziva kataraktu.U ovom smo radu promatrali pokazatelje oksidativnog stresa u lećama štakora osvjetljnih sa UV svjetлом.

Bolesnici i metode:

Leće štakore stavljene su fosfatni pufer pH 7,5 i osvjetljene sa UV lampom kod svjetlosti od 340 nm.Leće su osvjetljene 4,8,12 i 24 sata.Nakon tretmana leće su homogenizirane u fosfatnom puferu i centrifugirane 10 min kod 1000 x g .Dobiveni su bistri supernatant i tamni talog bogat proteinima.U talogu leća određena je koncentracija slobodnih radikala: superoksida (O_2^*) i dušičnog oksida (NO^*).istovremeno su u talogu određeni pokazatelji oksidativnog stresa kao što su reducirani glutation (GSH) , vodikov peroksid (H_2O_2),tiolni proteini (P-SH) i enzim superoksid dizmutaza.

Rezultati:

UV svjetlo u lećama štakora stvara kisikove i dušikove radikale i H_2O_2 .Količina tih spojeva raste sa vremenom izlaganja na UV svjetlo.GSH je važan stanični antioksidans.Njegova koncentracija je najmanja u lećama 24 sata nakon izlaganja UV svjetlu.Sličan odnos postoji u količini tiolnih proteina i koncentraciji enzima superoksid dizmutase.

Zaključak:

Jednostavno izlaganje leća UV svjetlu in vitro izaziva oksidativno oštećenje leća.Ono smanjuje antioksidativnu odbranu leća i strukturu i funkciju lećnih proteina.Ovi rezultati ukazuju da je UV svjetlo značajni izvor oksidativnog oštećenja leća kroz godine izlaganja UV svjetlu.

English

Title: Influence of UV light on oxidative damage rat lenses in vitro

Authors: Slaven Balog, Zlatko Balog, Ratimir Klepac

Institution: Clinical Hospital Osijek, Medical School of Zagreb, Croatia.

Aim: UV light in many years releases free radicals in human lenses and

induced their cataracts. In this work we have measured parameters of oxidative stress in rat lenses lighted with UV light.

Patients and methods:

Rat lenses were put in phosphate bufer pH 7,5 and lighted with UV lamp- light 340 nm. Lenses were lighted 4,8,12 and 24 hours. All lenses were homogenized in phosphate buffer and centrifuged at 1000x g ten minutes. We have obtained transparent supernatant and dark sediment riched with proteins. In sediment we have determined free radicals: superoxide (O_2^*) and nitrogen oxide(NO^*) and hydrogen peroxide(H_2O_2). Simultaneously, we have assayed parameters of oxidative stres such us reduced glutathione (GSH), thiol proteins(P-SH) and enzyme superoxide dismutase.

Results:

Simple treatment with UV light generates oxygen and nitrogen free radicals and H_2O_2 . GSH is esential antioxidant. Its concentration in lens palet is the least 24 hours after UV treatment. Similar ratio existed in concentration of P-SH proteins and superoxide dismutase.

Conclusion:

Simple treatment of rat lenses with UV light induced thir oxidative damage. This damage has a strong effect on structure and function of lens proteins. These results indicate that high time lighting on UV light is esential source of lens oxidative damage in many years of UV lighting.

Naslov: Nespecifične obostrane promjene vjeđa kao prvi znak Non-Hodgkin limfoma

Autori: dr. A. Koluder, dr. J. Pavičić - Astaloš, dr. L. Marić, dr. Z.

Nemet

Ustanova: Očni odjel, Opća bolnica dr. T. Bardek, Koprivnica

Cilj: Cilj rada je prikazati neuobičajan slučaj promjena vjeđa kao prvi nespecifičan znak sistemskog oboljenja.

Bolesnici i metode:

77-godišnja žena, s obostranim edemima vjeđa, uključujući hiperemične vjeđne rubove i cistične promjene vjeđa, liječena je lokalnom antibiotskom terapijom. Njezin lokalni status nije poboljšan, štoviše, cistične promjene na vjeđama su porasle, uzrokujući povećanje mase tkiva vjeđa, a time i smanjenu vidnu funkciju. U fizikalnom statusu, nađena su dva palpabilna limfna čvora, veličine 0,5 cm, po jedan u svakoj ingvinalnoj regiji. Učinjena je citološka punkcija najveće cistične promjene vjeđa, oba čvora, citološki razmaz periferne krvi te biopsija koštane srži.

Rezultati:

Citološka punkcija i biopsija potvrđile su dijagnozu NHL / SLL te je bolesnica upućena na daljnju hematološku obradu. Mjesec dana kasnije, bolesnica je primljena na Odjel hematologije s uznepradovalim stadijem bolesti. U fizikalnom statusu, nađeno je mnoštvo povećanih palpabilnih limfnih čvorova. Učinjena je dodatna radiološka dijagnostika i biopsija limfnog čvora, koja je potvrdila novootkriveni indolentni NHL, u kliničkom stadiju IV, CD20 s visokim indeksom Ki67. Bolesnica je sada u toku prvog ciklusa terapije monoklonskim protutijelima.

Zaključak:

Nespecifični simptomi u području orbita i vjeđa moraju se detaljno obraditi kao potencijalni znak sistemskih oboljenja.

English

Title: NONSPECIFIC BILATERAL EYELID CHANGES AS A FIRST SIGN OF

Authors: dr. A. Koluder, dr. J. Pavičić – Astaloš, dr. L. Marić, dr. Z.

Nemet

Institution: Ophthalmology Department, General Hospital Dr. T.

Bardek , Koprivnica

Aim: We present an unusual case report of eyelid symptomatology as the first nonspecific sign of systemic disease.

Patients and methods:

A seventy-seven year old woman, with bilateral eyelid oedema including hyperemic eyelid edges and cystic eyelid changes, was treated with local antibacterial therapy. Her local status didn't improve, furthermore, the cystic eyelid changes had increased, enlarging eyelid tissue and causing visual impairment.

In patients physical status, were found two lymphonodes, size 0,5 cm, one in each side of ingvinal region. Cytological punction of the largest cystic change and both lymphonodes was made. Also, the biopsy of the bone marrow and cytological smear of the peripher blood were made.

Results:

Cytological punction confirmed the diagnosis of NHL / SLL and futher heamatological examination was recomended to patient. One month later, she was admitted to Heamatology Department with advanced form of disease. In her physical status, were now found multiple enlarged lymphonodes. Imaging diagnostic and biopsy of the lymphonodes confirmed new-found indolent NHL, clinical stage IVB, CD20 with high indeks Ki67. Patient is now on the first cycle of the biological therapy with monoclonal antibodies.

Conclusion:

Nonspecific eyelid and orbital symptoms must be seriously evaluated as a potential signs of systemic conditions.

Naslov: Djelovanje Energizer HPE 40 na oksidativni stress očnih leća štakora in vitro

Autori: Ratimir Klepac, Slavko Ivković

Ustanova: Zavod za biologiju Medicinskog fakulteta u Zagrebu, Regiopharma ,Slovenija

Cilj: Slobodni kisikovi radikalni (ROS) i velika količina glukoze ubrzavaju razvoj katarakte ljudi, mijenjajući strukturu i funkciju leće.U ovom radu smo ispitivali djelovanje snažnog antioksidansa Energizer HPE 40 na oksidativni stres leća štakora tretiranih sa glukozom.

Bolesnici i metode:

Leće štakora su inkubirane 4 dana u fosfatnom puferu pH 7,5 kome je dodana 50 mM glukoza.Dodana glukoza ima snažno oksidativno djelovanje.U polovinu uzorka dodano je 10 mg Energizer HPE 40 (Regiopharma d.o.o. Slovenija).Energizer HPE 40 je snažna mješavina antioksidanata: likopena(iz rajčice),resveratrola(iz crnog vina) i epigalokatehin galata (iz zelenog čaja).Glukoza i Energizer HPE 40 mijenjani su svakih 24 sata inkubacije.Nakon inkubacije leće su homogenizirane i centrifugirane 10 min kod 1000x g.Dobijene su dvije frakcije, talog i supernatant.U supernatantu su određeni superoksidni radikal, reducirani glutation (GSH), tiolni proteini (SH-P), karbonilni proteini, ukupni antioksidansi, glicirani proteini i aktivnost enzima katalaze.

Rezultati:

GSH je snažan stanični antioksidans.Njegova se koncentracija u lećama inkubiranim sa Energizer HPE 40 povećava za 3,7 puta.Količina superoksidova i gliciranih proteina jednaka je u tretmanu sa i bez Energizer HPE 40.Energizer HPE 40 povećava za 11% količinu aktivnih tiolnih proteina i smanjuje za 70 % koncentraciju neaktivnih karbonilnih proteina.Istovremeno on smanjuje aktivnost katalaze za 3 %.

Zaključak:

Inkubacija se Energizer HPE 40 povećava u lećama razinu aktivnih SH proteina i smanjuje količinu oksidiranih-karbonilnih proteina.Ovi rezultati pokazuju da Energizer HPE 40 može usporiti razvoj kataraktogenih promjena u lećama.

English

Title: Effect of Energizer HPE 40 on oxidative stress in rat lenses in vitro.

Authors: Ratimir Klepac , Slavko Ivkovic

Institution: Medical School of Zagreb, croatia, Regiopharma,Slovenia.

Aim: Oxygen free radicals (ROS) and high concentration of Glucose acceleratee lens cataract in humans.They changed structure and function of lens proteins.In this word we have investigated effect of strong antioxidant Energizer HPE 40 on parameters of oxidative stress in rat lenses treated in vitro with glucose.

Patients and methods:

Rat lenses were incubated four days in phosphate buffer pH 7,5 , supplemented with 50 mM glucose.Added glucose is permanent generator of ROS.In half incubation medium we have added 10 mg of Energizer HPE 40 (Regiopharma d.o.o. Slovenia).Energizer HPE 40 is mixture of strong antioxidants: lycopene(sourse tomato), resveratrol (sourse red wine) and epigalocatechin galate (sourse green tea).Glucose and Energizer were changed in incubation medium every 24 hours.After incubation tissues were homogenized and centrifuged at 1000 x g for 10 minutes.We have obtained sediment and supernatant.In supernatant we have measured superoxide radical, reduced glutathione (GSH) , thiol proteins (SH-P) , carbonyl proteins, total antioxidants (TAC), glycated proteins and activity enzyme catalase.

Results:

GSH is essential cel antioxidants.Energizer HPE 40 increased its concentration in incubated lenses for 3,7 fold.This antioxidant mixture increase concentration of active thiol proteins for 11% and decreqased level of inactive -carbonyl proteins for 76%.Energize did not change concentration of superoxide , TAC and glycated proteins.Simultaneously , Energizer HPE 40 decreases activity of enzyme catalase for 3%.

Conclusion:

Incubation with Energizer HPE 40 increases in lenses concentration of active thiol proteins and decreases level of inactive carbonyl proteins.These results indicate on possibility that Energizer HPE 40 can slow down development of lens cataractogenesis.

Naslov: Iskustvo u učenju fakoemulzifikacije**Autori: dr. J. Pavičić - Astaloš, dr. A. Koluder, dr. L. Marić****Ustanova: Očni odjel ,Opća bolnica \'\' dr. T. Bardek \'\'****Koprivnica**

Cilj: Ova retrospektivna studija ima za cilj procijeniti teškoće učenja fakoemulzifikacije.

Bolesnici i metode:

Ova studija rađena je na očnom odjelu, opće bolnice Koprivnica, gdje su održavani fako tečajevi u zadnje tri godine. Tečajevi su se sastojali od gledanja operacija, predavanja i vježbanja operacija na svinjskim očima dva puta tjedno. Također su snimane i pomno evaluirane vlastite operacije. Povremeno, mladi operateri su imali priliku operirati uz iskusnog kirurga. Učinjena je retrospektivna analiza naših prvih 250 slučajeva fakoemulzifikacije. Svi bolesnici su operirane u sklopu dnevne kirurgije. Bilježene su intraoperativne i postoperativne komplikacije.

Rezultati:

Razdvajanje nukleusa najteži je korak u učenju fakoemulzifikacije. Najučinkovitiji način uočavanja vlastitih operativnih grešaka je gledanje svojih snimljenih operacija. U prvih 100 slučajeva fakoemulzifikacije, operativne komplikacije su bile minimalne ukoliko je izvođenju operacije prethodilo neposredno vježbanje na svinjskim očima. Nakon prvih sto operacija, postotak operativnih komplikacija značajno je smanjen. Nisu nađene nikakve postoperativne komplikacije vezane za dnevnu kirurgiju.

Zaključak:

Adekvatnim vježbanjem, učenjem i neprestalnim samoprocjenjivanjem, mladi oftalmolozi mogu postići operativnu kompetenciju s dobrim operativnim rezultatima.

English

Title: PHACO TRAINING – A LEARNING EXPERIENCE

Authors: dr. J. Pavičić - Astaloš, dr. A. Koluder, dr. L. Marić

Institution: Ophthalmology Department , General hospital \'\' Dr. T. Bardek \'\', Koprivnica

Aim: This retrospective study was performed to evaluate the difficulties faced by an ophthalmologist while learning phacoemulsification . It

also evaluates ideal ophthalmic setting for phacoemulsification training
Patients and methods:

This study was conducted at the Ophthalmology Department, General hospital, Koprivnica, where phaco-training courses are being held for the last 3 years. The course consists of observation of live surgeries, didactic lectures and practicing phaco surgery on piggy eyes twice a week. It also involves watching own video cassettes for improvisation. Periodically, young surgeons were performing phacoemulsification under expert guidance.

Retrospective analysis of our first 250 cases of phacoemulsifications was done. All patients underwent one day surgery. Intraoperative complications were recorded in detail and postoperative course was followed.

Results:

Cracking showed as the most difficult step in phaco learning curve. The most effective way of observing own operative mistakes was watching own video cassettes.

In the first 100 cases, operative complication rate was minimal if the operation was performed immediately after practicing on piggy eyes. After one hundred cases, the number of intraoperative and postoperative complications decreased significantly. We found no early postoperative complications considering one-day surgery.

Conclusion:

With proper training, learning and constant self-evaluation young ophthalmologists can achieve surgical competency with good operative results

Naslov: Stečene viteliformne lezije povezane s velikim druzama - prikaz slučaja

Autori: F.Bišćan, D. Bosnar, M. Bušić, B. Kuzmanović Elabjer, M. Bjeloš Rončević

Ustanova: Klinička bolnica „Sveti Duh“

Cilj: Prikazati rijedak slučaj stečenih viteliformnih lezija povezanih s velikim druzama, kod pacijenta sa senilnom makularnom degeneracijom s naglim padom vida i dobrim oporavkom vidne oštine. Bolesnici i metode:

U rujnu 2009. godine, 58-godišnji muškarac javlja se sa simptomima naglog i izraženog gubitka vida na desnom oku gdje je najbolje korigirana vidna oština (VO) desnog oka bila broji prste pred okom (BPPO) dok je na lijevom oku iznosila 0,8. Pregledom fundusa oba oka uočene su velike druze u makuli sa zonom lokaliziranog odignuća sloja pigmentnog epitela te područjima hiperpigmentacije. Spectral domain optička koherentna tomografija (SDOCT) prikazala je hiperreflektivni materijal u subretinalnom prostoru uz manje hiperreflektivne nakupine ispod sloja retinalnog pigmentnog epitela (RPE) koje su odgovarale druzama. Iz medicinske dokumentacije vidljivo je da je u svibnju 2009. nastupilo blaže pogoršanje vida oba oka (najbolje korigirana VO desnog oka bila je 0,7, a lijevog 0,8). Šest mjeseci nakon izrazitog pogoršanja vida na desnom oku utvrđeno je poboljšanje vidne oštine desnog oka (najbolje korigirana VO desnog oka 0,4 i 0,8 lijevog oka) da bi devet mjeseci nakon dolaska najbolje korigirana VO obostrano iznosila 1,0. Tada je pregledom očne pozadine obostrano vidljiv areal atrofije u makuli, uz i dalje prisutne druze, a nalaz SDOCT-a pokazao nestanak stečenih viteliformnih lezija i pojavu atrofije retine i RPE-a. Na zadnjem kontrolnom pregledu utvrđena je najbolje korigirana VO od 0,9 na oba oka. Pacijent je kao terapiju primao vitaminsko mineralnu kombinaciju peroralno.

Rezultati:

Spontani oporavak vida s konačnom najbolje korigiranom VO 0,9 na oba oka nastupio je samo uz primjenu vitaminsko mineralne kombinacije lijekova.

Zaključak:

Prikazan je rijedak slučaj stečenih viteliformnih lezija povezanih s velikim druzama kod pacijenta sa senilnom makularnom degeneracijom. Pacijent je praćen kroz 22 mjeseca tijekom kojih je došlo do spontanog oporavka VO desnog oka od BPPO do konačne

najbolje korigirane VO 0,9.

English

Title: Acquired vitelliform lesions associated with large drusen - case report

Authors: F.Bišćan, D. Bosnar, M. Bušić, B. Kuzmanović Elabjer, M. Bjeloš Rončević

Institution: University hospital „Sveti Duh“

Aim: To present a rare case of acquired vitelliform lesions associated with large drusen in patient with age related macular degeneration, where sudden loss of vision occurred, but with good visual acuity (VA) recovery.

Patients and methods:

In September 2009., a 58-year-old male presented with symptoms of sudden and severe decrease of vision in the right eye. Best corrected visual acuity (BCVA) in the right eye was counting fingers and 0,8 in the left eye. Fundus examination in both eyes revealed the presence of large drusen in the macula with area of localised pigment epithelial detachment as well as areas of hyperpigmentation. Spectral domain optical coherence tomography (SDOCT) showed hyperreflective material in subretinal space and smaller hyperreflective accretions beneath the retinal pigment epithelium (RPE) layer corresponding to drusen. Patient's medical history revealed milder vision deterioration in both eyes in May 2009. (BCVA in the right eye was 0,7 and 0,8 in the left eye). Six months after severe visual loss in the right eye, there was an improvement of VA of the same eye (BCVA in the right eye was 0,4 and 0,8 in the left eye). Nine months after the presentation BCVA improved to 1,0 bilaterally. At that time fundus examination in both eyes showed area of atrophy in the macula, along with still present drusen. SDOCT revealed absence of acquired vitelliform lesions and appearance of retinal and RPE atrophy. At last follow-up visit BCVA was 0,9 in both eyes. As therapy, patient was only taking vitamin-mineral complex perorally.

Results:

Spontaneous vision recovery with BCVA of 0,9 in both eyes, occurred only supported by vitamin-mineral medication therapy.

Conclusion:

We presented a rare case of acquired vitelliform lesions associated with large drusen in patient with ARMD. Follow-up period was 22 months during which spontaneous recovery of patient's right eye

visual acuity occurred, from BCVA counting fingers to final BCVA 0,9.

Naslov: Sveobuhvatna obrada složene povrede oka u jednom aktu - prikaz slučaja

Autori: Zlatko Šlezak, dr med., spec. Oftalmolog

Ustanova: Očni Odjel, Opća Bolnica Varaždin

Cilj: Prikaz kirurških tehnika koje se primjenjuju za zbrinjavanjanje složenih povrede oka

Bolesnici i metode:

U radu se prikazuje sličaj složene povrede oka sa ulaznom ranom na rožnici, traumatskom kataraktom, intraokularnim stranim tijelom i dva udarna mesta na mrežnici sa lezijama žilnice

Rezultati:

Nakon kirurške obrade u jednom aktu postiže se anatomski i funkcionalni oporavak oka

Zaključak:

I najsloženije povrede oka se mogu zbrinuti u jednom kirurškom zahvatu. Ovakav pristup je pogodan za pacijenta i stvara manje troškove u zdravstvenom sustavu

English

Title: Comprehensive repair of complicated eye injury in a single surgery - case report

Authors: Zlatko Slezak, MD, Ophthalmologist

Institution: Department of Ophthalmology, General Hospital Varazdin

Aim: To present the surgical techniques used in repair of the most complicated injuries to the eye

Patients and methods:

We present a case of eye injury with a corneal entry wound, traumatic cataract, intraocular foreign body and with two impact sites on the retina with lesions to the choroid

Results:

After surgical repair in a single surgery there was a good anatomical and functional restoration of the eye

Conclusion:

Even the most complicated injuries to the eye may be treated in a single surgery. This approach is convenient for the patient and cost

effective for the health system

Naslov: Rađanje, življenje i starenje-mrena kao zajednički nazivnik u osam rijetkih slučajeva

Autori: Bućan K, Marin J, Stanić R, Ivanišević M, Galetović D, Karaman K, Marković I.

Ustanova: Klinika za očne bolesti KBC Split

Cilj: -

Bolesnici i metode:

Video prikaz osam rijetkih slučajeva ultrazvučne operacije komplikirane mrene, prikazanih i podijeljenih po desetljećima života bolesnika.

Rezultati:

-

Zaključak:

-

English

Title: Nativity, living and ageing - cataract like a common denominator in our rare eight cases

Authors: Bućan K, Marin J, Stanić R, Ivanišević M, Galetović D, Karaman K, Marković I.

Institution: Ophthalmology Department, Clinical Hospital Centre Split

Aim: -

Patients and methods:

Video demonstration of eight rare cases of phacoemulsification surgery distributed on decades of life of patients.

Results:

-

Conclusion:

-

Naslov: Uloga vitamina u senilnoj makularnoj degeneraciji**Autori: Ana Maria Karakaš****Ustanova: Poliklinika Bilić Vision**

Cilj: Prikazati važnost hranjivih tvari u spriječavanju razvijanja i zaustavljanju daljnje progresije senilne makularne degeneracije (SMD).

Bolesnici i metode:

Prikazani su pacijenti koji boluju od SMD. Podaci su preuzeti iz studija dostupnih na PubMedu.

Rezultati:

SMD je degenerativna bolest mrežnice koja uzrokuje gubitak centralnog vida i sljepoću u osoba starije životne dobi. SMD je multifaktorijalna bolest u kojoj svjetlost i oksidativni stres dovode do ireverzibilnog oštećenja te smrti retinalnih stanica. Hranjive tvari kao što su lutein i zeaxanthin, antioksidansi i Ω -3 masne kiseline štite makulu od takvih oštećenja, zbog čega su bitne za prevenciju i odgodu razvijanja bolesti. Brojne studije kao što su AREDS 1 i 2, LAST i LUTEGA potvrđile su njihovu ulogu u zaštiti makule od svjetlosti i antioksidativnog stresa.

Zaključak:

U današnje vrijeme više od 25% osoba starijih od 65 godina boluje od SMD. Nažalost, lijek za SMD ne postoji, zbog čega je unos hranjivih tvari jedini način spriječavanja i liječenja SMD.

English

Title: The role of nutrients in AMD

Authors: Ana Maria Karakaš

Institution: Poliklinika Bilić Vision

Aim: To show the benefit of nutrients in preventing and halting the progression of age related macular degeneration (AMD).

Patients and methods:

The patients included suffer from AMD. All the presented data is extracted from published studies pertaining to nutritional supplements for preventing the occurrence and halting the progression of AMD.

Results:

AMD is a degenerative retinal disease that causes central vision loss

and blindness in elderly. It is a multi factorial disorder in which light and oxidative stress cause irreversible damage to retina. Nutritional supplements such as lutein and zeaxanthin, antioxidant and Ω -3 fatty acids protect the macula from those type of damages. That is why they play an important role in preventing and halting the progression of AMD. The benefits of nutrients were proved by a number of studies such as AREDS 1 and 2, LAST, LUTEGA etc.

Conclusion:

Today more than 25% of population age 65 and older suffer from AMD. Unfortunately a cure for AMD still doesn't exist, which makes the intake of nutrients the only effective measure for prevention and halting the progression of AMD.

Naslov: ULTRAZVUČNA BIOMIKROSKOPIJA - naše dvogodišnje iskustvo

Autori: Karaman Martinović Ž, Lukenda A, Lukenda A

Ustanova: Očna poliklinika Opto centar, Zagreb

Cilj: Autori će objasniti tehniku pregleda i prikazati svoje dvogodišnje iskustvo u radu s ultrazvučnom biomikroskopijom (UBM).

Bolesnici i metode:

Dati će se slikovni prikaz dijagnoza pregledanih pacijenata, kao i korelacija s patohistološkim nalazima kod operiranih pacijenata s tumorima šarenice i cilijarnog tijela.

Rezultati:

Fizikalna svojstva visokofrekventnog ultrazvuka omogućuju prikaz struktura koje se nalaze posteriorno od šarenice, za razliku od OCT-a sustava gdje se infracrvena zraka apsorbira u pigmentnom epitelu šarenice. UBM također može vizualizirati strukture kod neprozirne rožnice ili prednje sobice ispunjene krvljom. U novije vrijeme je, zahvaljujući posebno dizajniranom jednokratnom gumenom nastavku za sondu (eng. ClearScan ultrasound probe cover), omogućena i iznimna praktičnost, udobnost i sterilnost pregleda.

Zaključak:

Ultrazvučna biomikroskopija (eng. UBM) razvijena je na Sveučilištu u Torontu 1990. godine kao prva metoda koja je omogućila ispodpovršinski slikovni prikaz živog oka mikroskopskom rezolucijom. Za razliku od klasičnog ultrazvuka, sonda AVISO UBM ultrazvuka (Quintel medical) radi na visokoj frekvenciji od 50 MHz. Ultrazvučna biomikroskopija je vrijedna dijagnostička metoda za detaljni pregled struktura prednjeg očnog segmenta (rožnica, šarenica, sobični kut, leća, lećne zonule, zrakasto tijelo i njihovi nastavci) s visokom rezolucijom.

English

Title: ULTRASOUND BIOMICROSCOPY - Our Two-year Experience

Authors: Karaman Martinović Ž, Lukenda A, Lukenda A

Institution: Eye polyclinic Opto Centar, Zagreb

Aim: Authors will present the examination technique and provide an overview of their two-year experience with AVISO ultrasound biomicroscopy (UBM).

Patients and methods:

Visual presentation of different diagnosis in patients examined with Aviso UBM in Opto Centar will be given, as well as the corresponding pathohistologically verified diagnosis in patients in which iris and ciliary body tumors were excised surgically.

Results:

The high frequency ultrasound easily penetrates through the iris pigment epithelium allowing imaging of the structures posterior to the iris, while the infrared beam in OCT systems is absorbed by the iris pigment epithelium. UBM also allows visualization of structures behind opaque cornea or blood filled anterior chamber. The specially designed disposable elastic cover for the probe (ClearScan ultrasound probe cover) improves comfort, sterility and ease of use.

Conclusion:

UBM was developed at the University of Toronto in 1990. This technology was the first method that allowed subsurface imaging of the living eye at microscopic resolution. As opposed to the classical eye ultrasound, probe of the AVISO UBM ultrasound (Quantel medical) works at a high frequency of 50 MHz. The UBM is a valuable tool for the in-depth examination of the anterior segment of the eye (cornea, iris, irido-corneal angle, lens, lens zonules, ciliary body and their processes) at high resolution.

Naslov: Intraokularni tlak i stopa progresije gubitka vidnog polja kod glaukoma otvorenog kuta

Autori: K Novak-Lauš, T Cvetetić-Žužul, F Barišić, I Krolo, M Zorić-Geber, Z Mandić

Ustanova: Klinika za očne bolesti, KBC

Cilj: Cilj studije je ustanoviti korelaciju intraokularnog tlaka i stope progresije gubitka vidnog polja trend analizom kod bolesnika s glaukomom otvorenog kuta.

Bolesnici i metode:

U radu je mjerena stopa progresije gubitka vidnog polja kroz period praćenja (srednja vrijednost vremena praćenja je 36,9 +/-17,4 mjeseci) koristeći Trend analizu kod 30 očiju od 30 bolesnika s glaukomom otvorenog kuta. Koristio se G2 program Octopus 900 perimetra.

Rezultati:

18 očiju je imalo stabilno vidno polje, a 2 su bolesnika imala signifikantno poboljšanje vidnog polja. Deset očiju imalo je signifikantno pogoršanje i pokazivali su korelaciju sa pokazateljima intraokularnog tlaka (standardna pogreška, standardna devijacija i raspon) i stopu progresije pogoršanja vidnog polja u superonazalnoj regiji. Što je bila veća varijacija intraokularnog tlaka to je bila i veća stopa progresije oštećenja vidnog polja.

Zaključak:

Signifikantna stopa progresije pogoršanja vidnog polja u određenom stupnju bolesti tijekom praćenja bolesnika, pokazala je korelaciju s intraokularnim tlakom.

English

Title: Intraocular pressure and the rate of visual filed loss in open-angle glaucoma

Authors: K Novak-Lauš, T Cvetetić-Žužul, F Barišić, I Krolo, M Zorić-Geber, Z Mandić

Institution: Department of Ophthalmology, Clinical Hospital Center \\\

Aim: The aim of this study is to appoint a correlation of intraocular pressure with rate of progression by Trend analysis in patients with open angle glaucoma.

Patients and methods:

We measured the rate of change of visual field threshold values over time (mean follow-up, 36,9+/- 17,4 months) by Trend Analysis in 30 eyes of 30 patient with open-angle glaucoma using G2 program on Octopus 900 Visual field analyser.

Results:

Eighteen eyes had stable visual fields, and two eyes had significant visual field improvement. Ten eyes had significant visual field deterioration and showed a correlation between indices of intraocular pressure (standard error of the mean, standard deviation and range) and the rate of visual field loss in the superonasal region of the visual field, such that the greater the variation of intraocular pressure the greater the rate of loss.

Conclusion:

A significant rate of visual field loss occurred at an explicitly stage of the disease showed the correlation with intraocular pressure in that stage.

Naslov: Korekcija visokog astigmatizma; kakvo poboljšanje vidne oštrine donosi optimalna korekcija RGP lećama?

Autori: Ksenija Ćuruvija Opačić

Ustanova: Poliklinika oftalmologija i interna, Zagreb

Cilj: Usporediti razlike u najbolje korigiranoj vidnoj oštrini postignutoj sa naočalama i RGP kontaktnim lećama u pacijenata sa visokim jednostavnim ili složenim astigmatizmom (miopskim, hipermetropskim i mijеšanim).

Bolesnici i metode:

Retrospektivno su analizirani podaci u 72 pacijenta (120 očiju) sa visokim astigmatizmom (od 3 do 7 Dcyl), od dječje do zrele životne dobi (5 do 51 godinu).

Svi su pacijenti ranije nosili samo naočale. Kod svih je provjerena korekcija astigmatizma naočalama, a potom je učinjena korekcija RGP kontaktnim lećama. Korekcija do 3,5 Dcyl učinjena je sfernim RGP lećama a od 3,5 do 7 Dcyl toričnim RGP lećama.

Rezultati:

Analizom podataka dokazano je značajno poboljšanje vidne oštrine postignuto RGP kontaktnim lećama u odnosu na naočale, od cca 10% pa sve do 50% u gotovo svih pacijenata. Detalji statističke obrade će biti izneseni tijekom prezentacije.

Zaključak:

Korekcija visokog astigmatizma RGP lećama značajno doprinosi poboljšanju vidne oštrine u gotovo svih pacijenata. Sve pacijente dječje dobi sa visokim astigmatizmom bi trebalo što ranije korigirati RGP lećama da bi se osigurala što bolja vidna oštrina i izbjegao razvoj ambliopije.

English

Title: High astigmatism correction; what improvement brings optimal correction with RGP lenses?

Authors: Ksenija Ćuruvija Opačić

Institution: Polyclinic for ophthalmology and internal medicine, Zagreb

Aim: To compare best corrected visual acuity with glasses and RGP contact lenses in patients with high simple or compound astigmatism

(myopic, hypermetropic and mixed).

Patients and methods:

Retrospective data analysis of 72 patients (120 eyes) with high astigmatism (from 3 to 7 Dcyl) aged from childhood to mature age (5 to 51 years) were performed. All patients wore only glasses earlier.

Visual acuity with glasses were checked, followed by correction with RGP lenses. Spherical contact RGP lenses were used up to 3,5 Dcyl, and toric RGP lenses were used in astigmatism from 3,5 to 7 Dcyl.

Results:

Data analysis showed significant improvement of visual acuity achieved with RGP contact lenses compared to glasses from approximately 10 percent up to 50 percent in almost all patients. Details of statistical analysis will be presented during presentation.

Conclusion:

Correction of high astigmatism with RGP lenses significantly improves visual acuity in almost all patients. All patients with astigmatism detected in childhood should be fitted with RGP lenses to assure best visual acuity and prevent the development of amblyopia.

Naslov: Jatrogena katarakta uzrokovana postvakcinacijskim uveitisom-prikaz slučaja

Autori: Gruber B, Barać J, Biuk D, Bradvica M, Dobutović D

Ustanova: Odjel za oftalmologiju, Klinički bolnički centar Osijek

Cilj: Prikazati pacijentiku u koje se razvila katarakta nakon preboljelog teškog oblika postvakcinacijskog uveitisa u dječjoj dobi

Bolesnici i metode:

Pacijentica stara 33 godine se javlja na Odjel radi izrazito loše vidne oštirine na oba oka s obzirom na dob. Anamnezom se otkriva da je pacijentica imala zadovoljavajući vid u predškolskoj dobi, te da su smetnje vida nastupile nakon cijepljenja oko sedme godine života. Po prijemu pacijentica je oftalmološki obrađena (ispitivanje vidne oštirine, biomikroskopija, aplanacijska tonometrija, UZV sa biometrijom, OCT te pregled fundusa). Također je učinjena serološka pretraga krvi i sline na rubeola antitijela, kako bi se isključila aktivna ili preboljela rubeola. Kliničkim pregledom se ustanovila bilateralna maturalna katarakta sa destrukcijom šarenice i stražnjim sinehijama. Operacija mrene učinjena je tehnikom fakoemulzifikacije sa ugradnjom IOL-a u stražnju sobicu.

Rezultati:

Mjesec dana od operacije, vidna oštirina pacijentice bila je iznenađujući zadovoljavajuća (0,6 desno i 0,8 lijevo oko).

Zaključak:

S obzirom na dobru postoperativnu vidnu oštirinu pacijentice, smatramo da je gubitak vida nastupio nakon već razvijene vidne funkcije, odnosno oko sedme godine života. Ta se životna dob podudara sa primitkom MoPaRu cjepliva što je anamnestički potvrđeno. Sve nato navodi na zaključak da je katarakta kod ove pacijentice najvjerojatnije bila uzrokovana teškim oblikom uveitisa koji se razvio nakon primitka MoPaRu cjepliva.

English

Title: Iatrogenic cataract caused by postvaccination uveitis- a case report

Authors: Gruber B, Barac J, Biuk D, Bradvica M, Dobutovic D

Institution: Department of Ophthalmology, Clinical Hospital Centre

Osijek

Aim: To show the patient with mature bilateral cataract which occurred after having severe type of uveitis

Patients and methods:

A 33-year-old patient appears at the Ophthalmology department because of reduced visual acuity of both eyes. We found out anamnestic that the patient had a relatively good sight in the childhood. The acuity reduction was noticed after the vaccination at the age of seven. A patient has been ophthalmologically examined (visual acuity testing, biomicroscopy, aplanation tonometry, ultrasound both eyes with biometry and ophthalmoscopy). Furthermore, the patient's blood and saliva were tested for Rubella specific antibodies, so that active or healed of Rubella can be excluded. Clinical examination shown bilateral mature cataract existence with iris destruction and posterior synechias. The patient underwent a cataract surgery procedure (phacoemulsification and intraocular lens implant).

Results:

One month after the surgery, visual acuity was surprisingly good (OD 0,6 and OS 0,8).

Conclusion:

Because of a surprisingly good visual acuity of the patient, we can say that the visual loss probably occurred after already developed visual function (around the age of seven). In that age the patient received MMR vaccine, which had been anamnestic confirmed. In addition, we concluded that the cataract of this patient most likely caused by severe type of uveitis after MMR vaccination.

Naslov: REFRAKCIJSKI STATUS U DJECE S KONVERGENTNIM STRABIZMOM ROĐENE PRIJE TERMINA I NA TERMIN

Autori: Autori: Siniša Skelin,Dobrila Karlica Utrobičić,Ljubo Znaor,Svetlana Matijević,Milan Ivanišević

Ustanova: KBC Split

Cilj: Ispitati postojanje razlika u refrakcijskom statusu djece s konvergentnim strabizmom rođene prije termina i na termin u dobi od 5 godina.

Bolesnici i metode:

Ovo je retrospektivna studija u kojoj je ispitan 142 djece (284 očiju) u dobi od 5 godina s konvergentnim strabizmom. Ispitanici su podjeljeni u 2 skupine.

U 1. skupini su djeca (71 dijete,142 oka) s konvergentnim strabizmom koja su rođena na termin.

U 2. skupini su djeca (71dijete,142 oka) s konvergentnim strabizmom koja su rođena prije termina.

Svakom ispitaniku je obavljen kompletan oftalmološki pregled,a refrakcija je utvrđena u atropinskoj sferosferičnoj skijaskopiji.

Podaci su uzeti iz medicinske dokumentacije ambulante za strabizam koje smo statistički obradili i grafički prikazali.

Rezultati:

Obradom podataka dobivena je statistički značajna razlika učestalosti miopije u skupini djece rođene prije termina. U toj grupi je učestalost miopije bila gotovo dvostruko veća.

Zaključak:

Statistički značajnu razliku smo našli u djece rođene prije termina gdje je učestalost miopije veća.

U obje skupine djece prevladavala je hipermetropija,kod donešene djece prosječna vrijednost sfernog ekvivalenta je $+2.50 \text{ Dsph} \pm 1.50$ a kod nedonešene djece je $+2.25 \text{ Dsph} \pm 1.75$ i tu nisu nađene statistički značajne razlike.

Dobiveni rezultati su slični rezultatima i drugih autora na ovu temu gdje je nedonošenost sama po sebi faktor rizika za promjene u refrakcijskom statusu.

English

Title: Refractive status in children with convergent strabismus, premature born and at term born

Authors: Autori: Siniša Skelin,Dobrila Karlica Utrobičić,Ljubo Znaor,Svetlana Matijević,Milan Ivanišević

Institution: Universiti hospital Split

Aim: To examine differences in the refractive state of children with convergent strabismus premature and term born at the age of 5 years.

Patients and methods:

This is a retrospective study in which we examined 142 children (284 eyes) aged 5 years with convergent strabismus. There were 2 groups of patient: in first group of children (71 children, 142 eyes) with convergent strabismus who were born at term, in the second group of children (71 children, 142 eyes) with convergent strabismus who were born before term.

Each patient performed a complete ophthalmologic examination, and refraction is determined in cycloplegic retinoscopy.

Data were taken from medical records for outpatient patients with strabismus that are statistically processed and presented graphically

Results:

By processing the data we found statistically significant difference between the incidence of myopia in children born before term. In this group the prevalence of myopia was almost twice as high.

Conclusion:

Statistically significant differences are found in children born before term, with the prevalence of myopia increased.

In both groups of children dominated the hyperopia, the children brought the average value of the spherical equivalent was +2.50 diopters + - 1.50 and in children\\\\\\\\'s preterm born +2.25 + -1.75 diopters, and there are no statistically significant differences.

These results are similar to the results of other authors on this subject where the prematurity itself is a risk factor for the change in refractive status.

Naslov: Mjerenje debljine sloja živčanih vlakana mrežnice i makularnog područja glaukomskih bolesnika pomoću optičke koherentne tomografije

Autori: Smiljka Popović Suić, Sonja Jandroković, Marija Barišić, Branimir Cerovski

Ustanova: Klinika za očne bolesti, KBC Zagreb, Medicinski fakultet, Sveučilište u Zagrebu

Cilj: Usporediti vrijednost nalaza mjerenja sloja živčanih vlakana mrežnice i makularnih mjerena u dijagnostici glaukoma pomoću optičke koherentne tomografije.

Bolesnici i metode:

Uključeno je ukupno 97 očiju, 32 zdrava, 37 sa početnim i 29 s uznapredovalim glaukomom. Optical Coherence Tomography (OCT) (SOCT Copernicus; OPTOPOL Technology S.A)) je upotrebljen za mjerenje debljine peripapilarnog sloja živčanih vlakana mrežnice (RNFL) i totalne debljine i volumena makule za 1, 3 i 6 mm. Haag-Streit Octopus 101/G2 glaukomski program je upotrebljen za perimetriju. Glaukomski ispitanici su prema Glaucoma Staging System podijeljeni na 2 skupine: početni i uznapredovali glaukom. Vrijednost svakog OCT parametra u skupini početnog i uznapredovalog glaukoma je uspoređena sa vrijednostima zdravih. Student t-test je upotrebljen pri statističkoj obradi nalaza.

Rezultati:

U usporedbi sa zdravima nađeno je statistički značajno stanjenje RNFL u gornjem kvadrantu u skupini početnog glaukoma. U skupini uznapredovalog glaukoma u usporedbi sa zdravima, nađeno je statistički značajno stanjenje ukupne srednje vrijednosti RNFL i posebno u gornjem i donjem kvadrantu. Analizom makule, pronađena je statistički značajna razlika jedino u totalnoj debljini makule u dijametru 6 mm između zdravih i skupine sa uznapredovalim glaukomom. Nije nađena statistički signifikantna razlika u makularnom volumenu između skupine zdravih i obje glaukomske skupine.

Zaključak:

Prema našim rezultatima, za dijagnozu početnog glaukoma značajno je smanjenje debljine gornjeg kvadranta peripapilarnog RNFL, dok je za dijagnostiku uznapredovalog glaukoma značajna smanjena sveukupna srednja vrijednost debljine RNFL, kao i debljina RNFL u gornjem i donjem kvadrantu. Mjera debljine peripapilarnog RNFL je

bolji indikator glaukomskih promjena nego mjerjenje totalne debljine i volumena makule, naročito u bolesnika s početnim glaukomom.

English

Title: Retinal nerve fiber layer measurement and macular measurement in glaucoma patients; an optical coherence tomography study

Authors: Smiljka Popović Suić, Sonja Jandroković, Marija Barišić, Branimir Cerovski

Institution: Eye clinic, Clinical hospital centre Zagreb, Medical school, University of Zagreb

Aim: To compare the discrimination power of retinal nerve fibre layer thickness with macular measurements for glaucoma detection by optical coherence tomography.

Patients and methods:

Optical Coherence tomography (SOCT Copernicus; OPTOPOL Technology S.A)) was used to measure peripapillary retinal nerve fiber thickness (RNFL) and total macular thickness and volume. The macula was recorded as overall thickness and volume for 1, 3 and 6 mm diameter. Haag-Streit Octopus 101/G2 glaucoma programm was used for perimetry. Participants were assigned according Glaucoma Staging System as early and advanced glaucoma. The discrimination power of each OCT parameter was evaluated in early and advanced glaucoma group and compared to healthy subjects. Student t-test was used for continuous variables of retinal nerve fiber layer thickness and macular findings.

Results:

Comparison of RNFL thickness between early glaucoma group and control group showed statistically significant thinning of RNFL in superior quadrant.

Comparison of RNFL thickness between advanced glaucoma group and control group showed statistically significant thinning in mean RNFL thickness as well in superior and inferior quadrants.

Significant difference in total macular thickness in diameter 6 mm between healthy and glaucoma eyes was found only in advanced glaucoma group. There was no statistically significant difference in macular volume at any diameter between control and both glaucoma groups.

Conclusion:

Our finding suggests that superior quadrant RNFL thickness assessment may be appropriate for detection of early glaucoma. In advanced glaucoma, mean value RNFL thickness and superior and inferior quadrant RNFL thickness are statistically significantly reduced in comparison to control. RNFL thickness is better than any tested macular parameter when used for glaucoma detection. Discrimination power of macular measurements obtained by OCT is found only in advanced glaucoma for total macular thickness in diameter 6mm.

Naslov: MORNING GLORY SINDROM-PRIKAZ SLUČAJA**Autori: Brkić T., Vukojević N., Cerovski B.****Ustanova: Klinika za očne bolesti Medicinskog fakulteta; KBC Zagreb**

Cilj: Prikazati rijedak slučaj nasljedne, bilateralne kongenitalne anomalije glave vidnog živca s seroznim odignućem makule bez znakova sistemske udruženosti u 15 godišnjeg dječaka.

Bolesnici i metode:

Prikazana je oftalmološka dijagnostika foto fundusa, OCT , UZV, VEP, kinetička perimetrija, skijaskopija, strabološka obrada i liječenje acetazolamidom.

Rezultati:

Dijagnostičkom obradom 15 godišnjeg dječaka s anamnezom obostranog pada vidne oštine unazad godine dana, nađene su kliničke karakteristike morning glory sindroma s komplikacijom seroznog odignuća makule i pozitivnom obiteljskom anamnezom. Nisu nađeni znakovi sistemske udruženosti.

Zaključak:

Morning glory sindrom je izuzetno rijetka, kongenitalna anomalija glave vidnog živca, obično unilateralna sporadična, a još rjeđe bilateralna i nasljedna.

English

Title: MORNING GLORY ANOMALY-CASE REPORT

Authors: Brkić T., Vukojević N., Cerovski B.

Institution: University Department of Ophthalmology, Clinical Hospital Center Zagreb

Aim: To present a very rare case of hereditary, bilateral congenital optic nerve anomaly with serous macular detachment without signs of systemic associations at 15 years old boy.

Patients and methods:

We presented the ophthalmic diagnostics fundus photography, OCT, Ultrasound, VEP, kinetic perimetry, retinoscopy, strabology tests and treatment with acetazolamide.

Results:

Diagnostic workup of a 15 years old boy with history of bilateral

decreased visual acuity
within one year, we had find clinical features of morning glory anomaly
with complication serous macular detachment and positive family
history. We did not find signs of systemic associations.

Conclusion:

Morning glory anomaly is a very rare, congenital optic nerve anomaly,
usually unilateral sporadic, still rarer bilateral and hereditary.

Naslov: KLINIČKI ISHOD KVALITETE ŽIVOTA PO VF-14 UPITNIKU NAKON OPERACIJE KATARAKTE FAKOEMULZIFIKACIJOM U KRATKOVIDNIH BOLESNIKA
Autori: Marin Lovrić J, Matas A, Duplančić Šundov Ž, Batistić D, Bućan K
Ustanova: Klinika za očne bolesti, KBC Split

Cilj: Procijeniti kvalitetu života ovisnu o funkciji vida nakon operacije katarakte metodom fakoemulzifikacije kod kratkovidnih bolesnika te bolesnika s emetropijom te procijeniti zadovoljstvo pacijenata konačnim kirurškim ishodom u poboljšanju kvalitete života.

Bolesnici i metode:

Ovo komparativno istraživanje je obuhvatilo 35 očiju 35 bolesnika s kratkovidnosti i 35 očiju 35 bolesnika s emetropijom. Svim bolesnicima izvršena je operacija katarakte metodom fakoemulzifikacije s implantacijom intraokularne leće. Kvalitetu života bolesnici su procijenili pomoću VF-14 (Function Visual-14) upitnika. Ispitivana skupina bolesnika s kratkovidnosti uspoređena je s bolesnicima s emetropijom.

Vidna oštroseća i funkcija vida u procjeni kvalitete života koju ispituje upitnik VF-14 ispitane su najmanje 3 mjeseca nakon zahvata.

Rezultati:

Poboljšanje kvalitete života zbog poboljšanja funkcija vida bile su statistički značajno veće u skupini bolesnika s kratkovidnosti nego u onih s emetropijom ($p < 0,001$).

Zaključak:

Poboljšanje kvalitete života zbog poboljšanja funkcija vida kod bolesnika s kratkovidosti nakon operacije katarakte pokazala su se značajno većim, u odnosu na emetropne bolesnike, međutim zbog boljeg definiranja ispitivanih skupina, kao i zbog malog broja ispitivanog uzorka, postoji potreba za dalnjim istraživanjima.

English

Title: CLINICAL OUTCOMES IN QUALITY OF LIFE OF PHACOEMULSIFICATION IN PATIENTS WITH MYOPIA MEASURED BY VF-14
Authors: Marin Lovrić J, Matas A, Duplančić Šundov Ž, Batistić D,

Bućan K

Institution: Eye Clinic, Clinic Hospital Centre Split

Aim: To evaluate the clinical outcomes (visual acuity and visual function) in quality of life after phacoemulsification cataract surgery in patients with myopia and emetropia and assess patient satisfaction with final surgical outcome.

Patients and methods:

This comparative study comprised 35 eyes of 35 patients with different stages of myopia and 35 eyes of 35 patients with emetropia. All patients had cataract surgery by phacoemulsification with intraocular lens implantation. Patients were assessed using the VF-14 (Visual Function-14) questionnaire. The following groups of patients were compared: those with myopia and those with emetropia.

Results:

Improvements in quality of life were significantly higher in group of patients in myopia than in those with emetropia ($p<0.01$).

Conclusion:

Patients with myopia showed better functional improvements in quality of life after cataract surgery, although there is need for further researches for refining group of patients and for enlarging number of patients.

Naslov: Kongenitalni glaukom otkriven u kasnom djetinjstvu-prikaz slučaja

Autori: Škara Kolega M., Popović Suić S., Ekert M., Jandroković S , Škegro I

Ustanova: Očni odjel, Opća bolnica Zadar; Klinika za očne bolesti Medicinskog fakulteta, KBC Zagreb

Cilj: Prikazati slučaj kongenitalnog glaukoma prvi puta otkrivenog u dobi od 12 godina.

Bolesnici i metode:

Uvod: Primarni kongenitalni glaukom je rijetka očna bolest koja se u 80% slučajeva dijagnosticira u prvoj godini života. Klinički znakovi su epifora, blefarospazam, fotofobija, zamućenje rožnice i buftalmos. Glavni način liječenja je kirurški, a zlatni standard je trabekulektomija.

Rezultati:

Prikaz slučaja: Djevojčica u dobi od 12 godina javlja se na pregled zbog uvećanog desnog oka. Pregledom i obradom se utvrdi: vidna oština mahanje ruke pred okom, buftalmos, povišen očni tlak 46 mm Hg, ambliopija, divergentni strabizam, zamućenje i povećani promjer rožnice. Gonioskopski je nađen otvoreni kut prekriven masivnim priraslamicama i membranama. Na očnoj pozadini nađu se znakovi atrofije očnog živca. Učini se trabekulektomija desnog oka. Nakon operacije očni tlak na desnom oku iznosi 12 mm Hg. Bolesnicu se upućuje na obradu i liječenje ambliopije i strabizma.

Zaključak:

Kongenitalni glaukom se nužno ne otkriva u ranoj dobi kada operativno liječenje može očuvati funkciju vida. Dijagnoza u kasnijoj dječjoj dobi predstavlja terapijski izazov jer zahtjeva složeniji pristup liječenju, koje osim kirurškog, uključuje i pleoptičko liječenje.

English

Title: Congenital glaucoma diagnosed in late childhood - case report

Authors: Škara Kolega M.¹, Popović Suić S.², Ekert M.², Jandroković S², Škegro I ²

Institution: ¹Ophtalmology department, General hospital of Zadar;

²University Department of Ophtalmology , Clinical Hospital Center Zagreb

Aim: To present case report of congenital glaucoma detected for the

first time at age of 12.

Patients and methods:

Introduction: Primary congenital glaucoma is a rare condition which onset occurs in the first year of life in 80% of childhood glaucoma cases. Clinical symptoms and signs are: epiphora, blepharospasmus, phtophobia, corneal clouding and ocular enlargement. Main treatment options are surgical with trabeculectomy as a gold standard.

Results:

Case report: Girl, 12 years, examined for the first time because of ocular enlargement on the right eye.

A thorough clinical evaluation detected: visual acuity of hand movement, buphthalmos, elevated intraocular pressure of 46 mm Hg, enlarged cornea diameter, corneal clouding, amblyopia and divergent strabismus. Gonioscopy showed open anterior chamber angle covered with broad synechiae and membranes. Fundoscopy revealed signs of optic nerve atrophy. Trabeculectomy of the right eye was performed. In the early postoperative period intraocular pressure was 12 mm Hg. Patient was referred to pleoptic and strabological examination and treatment.

Conclusion:

Congenital glaucoma is not always diagnosed for the first time in the early childhood when surgery could preserve good visual function. Late diagnosis represents a therapy challenge and demands more complex ophthalmology treatment which includes surgery and pleoptic therapy.

Naslov: Epidemiologija i pridruženi čimbenici rizika za MGD:

screening pacijenata sa suhim okom u Hrvatskoj

Autori: Krešo, Jelena, Petriček, Igor

Ustanova: Dom zdravlja Zagreb Zapad, KBC Zagreb

Cilj: Iako se etiologija hiperevaporativnog suhog oka - difunkcije Meibomovih žlijezda (MGD) razlikuje od hiposekretornog suhog oka (deficita vodenog sloja), oba stanja dijele mnoge kliničke značajke uključujući simptome iritacije očne površine i promjena u vidnoj oštrini, promjene stabilnosti suznog filma i potencijalnog oštećenja površine oka.

Bolesnici i metode:

Epidemiološka istraživanja MGD su ograničena, zato što ne postoji konsenzus o definiciji bolesti, kao niti standardizirana klinički algoritam/protokol dijagnostike. Dostupne su studije bazirane na ispitivanjima stanovništva (population-based trials) koje nude procjenu prevalencije MGD. Za potrebu ove studije u Hrvatskoj, autori su konstruirali jednostavni orijentacijski upitnik za brzi probir pacijenata sa suhim okom, te pokušali diferencirati dva klinička stanja. U screening su uključeni svi pacijenti koji su došli na oftalmološki pregled u periodu od 2 tjedna u dvije različite oftalmološke ordinacije, kao i ljudi koji su ispunili anketni listić u odabranim ljekarnama tijekom 2 tjedna provedene akcije screeninga suhog oka.

Ispitivani sudionici su bili nasumično odabrani, bez obzira da li su se obraćali oftalmologu / ispitivaču zbog simptoma suhog oka. Svi sudionici sa simptomima suhog oka kojima je screening obavljen u ljekarni, naručeni na pregled oftalmologu.

Rezultati:

Prevalencija MGD (hiperevaporativo suho oko) kreće se od 3,5 % (Salisbury Eye Evaluation u 2482 ispitanika, bjelaca, dob> 65 godina) preko 19,9 % (Melbourne Visual Impairment Project u 926 ispitanika, bjelaca u dobi od 40-97) do visoke 68-69,3% (Beijing Eye Study u 1957 ispitanika, Kineza dob> 40 godina). U naše praćenje uključili smo 98 sudionika, hrvatsko stanovništvo u dobi 29-79 godina, 56 žena, 42 muškaraca.

Zaključak:

Objavljeni rezultati dobiveni su različitim metodama mjerena (procjena začpljenosti ili iscjetka iz Meibomovih žlijezda (ocjene 2 i

3); TBUT -1 SD (10 sekundi); telangiektažija (sa i bez simptoma suhog oka). Autori ove studije koristili su brzi test trajanja 10 sekundi i skup pitanja za screening pacijenata. Za usporedbu rezultata i zaključak o epidemiologiji suhog oka potreban je konsenzus o dijagnostičkim metodama. Specijalizirani i nespecijalizirani testovi za MGD i MGD- srodne bolesti dostupni su na : The International Workshop on Meibomian Gland Dysfunction: Executive Summary, Nichols et al. IOVS, Special Issue 2011, Vol. 52, No. 4.

English

Title: EPIDEMIOLOGY AND ASSOCIATED RISK FACTORS FOR MGD:
CROATIA DRY EYE SCREENING

Authors: Krešo J.: P

Institution: Dom zdravlja Zagreb Zapad

Aim: Although the etiology of MGD may differ from that of aqueous deficient dry eye disease the two conditions share many clinical features, including symptoms of ocular surface irritation and visual fluctuation, altered tear film stability, and potential ocular surface compromise.

Patients and methods:

Epidemiologic investigation of MGD has been limited because there is no consensus regarding the definition nor is there a standardized clinical assessment that characterizes this disease. Available are population-based studies providing estimates of the prevalence of MGD. Authors constructed simple orientational questionnaire for quick dry eye screening, and tried to differentiate two clinical conditions. Screened were all patients who came for ophthalmology exam in 2 weeks period time in two offices, and people who came to chosen pharmacies during screening actions in the same 2 weeks. Interviewed were complainig and noncomplaining participants. All participants with symptoms of dry eye were scheduled for appropriate ophthalmology exam later.

Results:

Prevalence of MGD (hiperevaporative dry eye) ranges from 3,5% (Salisbury Eye Evaluation in 2482 Caucasian participants, age>65 years) to 19,9% (Melbourne Visual Impairment Project in 926 Caucasian participants age 40-97) up to high 68-69,3% (Beijing Eye Study in 1957 Mainland Chinese participants, age>40 years). We gathered 98 participants, all Croatian population, age 29-79 years, 56female, 42male.

Conclusion:

Published results used different measurement methods (Meibomian gland plugging or collarettes (grades 2 and 3); Tear break up time -1 SD (10 s); Telangiectasia (asymptomatic and symptomatic of dry eye). We used quick 10 second test and set of questions for screening. For results comparison and conclusion about epidemiology of dry eye necessary is consensus on diagnostic tools to be used.

Specialized and Nonspecialized Tests for MGD and MGD-Related Disease list is available in The International Workshop on Meibomian Gland Dysfunction: Executive Summary, Nichols et al. IOVS, Special Issue 2011, Vol. 52, No. 4

Naslov: Disfunkcija Meibomovih žljezda**Autori: Mirna Kliček, Sania Vidas, Igor Petriček, Tomislav Vidović****Ustanova: Klinika za očne bolesti Medicinskog fakulteta u Zagrebu, KBC Zagreb**

Cilj: Cilj ovog predavanja je da se istraži povezanost hormonalnog statusa, tipa kože te znakova i simptoma disfunkcije suznog filma budući da do sada nije provedeno takvo istraživanje, a sve u svrhu uvođenja uzročnog, a ne simptomatskog liječenja.

Bolesnici i metode:

pregledno predavanje

Rezultati:

pregledno predavanje

Zaključak:

U 93% svih oblika disfunkcije suznog filma smatra se da je odgovorna lipidna komponenta. Osim lipidnog sloja suzni film sastoji se još i od vodenog i mucinskog sloja.

Najveći dio lipidnog sloja proizvode Meibomove žljezde, a ostatak Mollove i Zeisove žljezde. U regulaciji sekrecije Meibomovih žljezda veliku ulogu ima hormonalna regulacija. Pad koncentracije androgena povezuje se s disfunkcijom Meibomovih žljezda. Na to ukazuje prisutnost enzima koji metaboliziraju androgene u Meibomovim žljezdama kao i činjenica da muškarci imaju 15 do 20 puta više androgena od žena te je kod njih i jače lučenje Meibomovih žljezda. Novu definiciju disfunkcije Meibomovih žljezda dala je radna skupina za disfunkciju Meibomovih žljezda (The International Workshop On Meibomian Gland Dysfunction): „Disfunkcija Meibomovih žljezda je kroničan, difuzni poremećaj Meibomovih žljezda, tipično karakteriziran obstrukcijom izvodnih kanalića i/ili kvalitativnim/kvantitativnim promjenama sekrecije žljezda. To može prouzročiti promjenu suznog filma, simptome očne iritacije, klinički primjetnu upalu i bolest površine oka.“

Oni naglasak stavlju na obstrukciju kanalića zbog upale koja je posljedica hipersekrecije lipida što odgovara blefaritisu. Glavni nedostatak je zanemarivanje važnosti i učestalosti primarne hiposekrecije.

Kao što je već spomenuto vrlo je važna hormonalna regulacija u sekreciji Meibomovih žljezda. Ako znamo da se žene puno češće žale na simptome disfunkcije suznog filma, da imaju mnogostruko manje

androgena u krvi te da većina žena u srednjoj i starijoj životnoj dobi ima suhu kožu, nameće se zaključak da je kod žena smanjeno lučenje lipida u Meibomovim žlijezdama. Cilj ovog predavanja je da se istraži povezanost hormonalnog statusa ,tipa kože te znakova i simptoma disfunkcije suznog filma budući da do sada nije provedeno takvo istraživanje, a sve u svrhu uvođenja uzročnog, a ne simptomatskog liječenja.

English

Title: Meibomian Gland Dysfunction

Authors: Mirna Kliček, Sania Vidas, Igor Petriček, Tomislav Vidović

Institution: Zagreb University Clinical Hospital Eye Department,
Zagreb, Croatia

Aim: The goal of this lecture is to explore the connection between hormonal status, skin type and signs and symptoms of tear film dysfunction, as this is of importance regarding right choice of therapy.

Patients and methods:

review presentation

Results:

review presentation

Conclusion:

The dysfunction of tear film lipid layer is considered to account for 93% of all types of tear film dysfunctions. Apart from lipid layer, the tear film consists of aqueous and mucin layer.

Meibomian glands produce the majority of lipids, the rest is produced by glands of Moll and Zeiss. Hormones have important role in regulation of Meibomian gland secretion. Decrease in the androgen stimulation is associated with meibomian gland dysfunction. Enzymes that metabolize androgens have been found in Meibomian glands. Also we have to bear in mind that men have 15 to 20 times more androgens than women and also more pronounced secretion of Meibomian glands.

New definition of Meibomian gland dysfunction was presented by The International Workshop On Meibomian Gland Dysfunction: „ Meibomian gland dysfunction is a chronic, diffuse abnormality of the meibomian glands, commonly characterized by terminal duct obstruction and/or qualitative/quantitative changes in the glandular secretion. It may result in alteration of the tear film, symptoms of eye irritation, clinically apparent inflammation, and ocular surface disease.“

They emphasize the duct obstruction due to inflammation which is the result of hypersecretion of lipids corresponding to blepharitis. The main drawback of this approach is neglecting primary lipid hyposecretion.

As already mentioned, hormones have the important role in Meibomian gland secretion. If we know that women are much more likely to complain of symptoms of tear film dysfunction, that they have lower concentration of blood androgens and that women in middle and old age have dry skin, then we can conclude that women have decreased secretion of lipids in Meibomian glands. The goal of this lecture is to explore the connection between hormonal status, skin type and signs and symptoms of tear film dysfunction, as this is of importance regarding right choice of therapy.

Naslov: Preseptalni celulitis - potencijalno smrtonosna bolest?
Autori: Damir Vukušić, Srđan Ante Anzić, Petar Mišković, Ivana Bednar Babić
Ustanova: Opća bolnica Karlovac

Cilj: Prikazati fulminantni tijek infekcije orbitalne regije čiji je ishod, bez pravovremene reakcije tima liječnika, mogao biti letalan.

Bolesnici i metode:

Prikaz slučaja 40-godišnje bolesnice koja se javila u hitnu očnu službu radi ograničenog crvenila gornje vjeđe i bolova u istom području. Otpuštena je kući uz lokalnu terapiju. Bezazlena klinička slika unutar 24 sata razvila se u flegmonu lica i vrata sa širenjem upale u torakalnu šupljinu i pojaviom toksičkog šoka.

Rezultati:

8 sati nakon prvog kontakta zbog pogoršanja simptoma učini se MSCT orbita koji pokaže izrazit otok mekih česti vjeđa i lica lijevo širine do 17mm aspekta upalnih promjena uz CRP 86. Ordinira se antibiotska terapija, no kroz sljedećih 8 sati dolazi do razvoja slike toksičkog šoka uz CRP 250. Uz anesteziološku konzultaciju stanje bolesnice se djelomično stabilizira, te se učini MSCT lica i vrata koji pokaže zadebljanje kože i potkožnog tkiva lijeve strane vrata uz čipkaste promjene unutar potkožnog masnog tkiva aspekta celulitisa koje kaudalno sežu sve od razine lijevog sternoklavikularnog zgloba. Na presjecima kroz orbite prikaže se izrazit otok mekih česti vjeđa i lica lijevo širine do 20 mm. 24 sata nakon prvog kontakata učine se rasteretne incizije glave i vrata te se korigira antibiotska terapija po infektologu. Prvi postoperativni dan učini se MSCT toraksa i abdomena gdje se vidi pleuralni izljev te hepatosplenomegalija. Naknadno dobiven nalaz brisa spojnica pokazao je Streptococcus piogenes, a bris incizija uz Streptococcus piogenes i Staphylococcus sp. Nakon osam dana dolazi do poboljšanja općeg i lokalnog statusa uz pad CRP-a na 17. Tijekom sljedeća tri mjeseca bolesnicu se tretira lokalnom terapijom protiv ožiljaka na licu i vratu uz preporuku za korektivnim zahvatom.

Zaključak:

Preseptalni celulitis, iako blaži oblik infekcije orbitalne regije, može u nekim slučajevima preuzeti malignu formu. Stoga bi pri radu u hitnoj očnoj službi trebalo imati na umu prikazani tijek bolesti i informirati bolesnika o alarmantnim simptomima kako bi se u slučaju pogoršanja pravovremeno reagiralo, te uz koordinaciju različitih liječničkih struka,

izbjegao letalan ishod.

English

Title: Preseptal cellulitis – potentially deadly disease?

Authors: Damir Vukušić, Srđan Ante Anzić, Petar Mišković, Ivana Bednar Babić

Institution: General hospital Karlovac

Aim: To show that infections of the orbital region, without upright reaction of the team of doctors, can be lethal.

Patients and methods:

A case report of 40-year old female, who came to ophthalmology emergency because of the limited redness of the upper eyelid and pain in the same area. She was dismissed with local therapy. In 24 hours, what seemed to be harmless clinical presentation, became phlegmona of the face and neck which spread into thoracal cavity and led to a toxic shock.

Results:

8 hours after first contact, MSCT was done due to deterioration of the symptoms. It showed severe swelling up to 17 mm of the eyelid tissue and face on the left side which indicated inflammation, CRP was 86. Antibiotic was given, but anyhow, during next 8 hours toxic shock developed with CRP 250. After anaesthesiologic consultation the patient was partially stabilized and new MSCT was done. It showed thickening of the skin and subdermal tissue on the left side of the neck with developing cellulitis of subdermal fat tissue all the way to sternoclavicular joint on the same side. Swelling of the eyelid tissue and face was now 20 mm. 24 hours after the first contact several incisions to the face and neck were made to help drain the pus, also antibiotic therapy was corrected according to infectologist. First postoperative day MSCT of thorax showed pleural effusion and hepatosplenomegaly. Conjunctival swab showed Streptococcus piogenes, and incisional swab Streptococcus piogenes and Staphylococcus sp. Eight days later general and local condition of the patient was improving, CRP was 17. During next three months, the patient was treated with local therapy against scars on the face and neck. Also corrective procedure was recommended.

Conclusion:

Preseptal cellulitis, although less severe orbital infection, can in some cases transgress to malignant form. Because of that, while working in ophthalmology emergency this case report should always come to

mind. In that way we can inform patient what to pay attention to concerning symptoms so he would come for help in time. Also, through coordination of different specialties we can avoid lethal outcome

Naslov: Mjerenje debljine lipidnog sloja suznog filma u svakodnevnoj oftalmološkoj praksi

Autori: Sania Vidas, Mirna Kliček, Marija Barišić- Kutija, Igor

Petriček, Tomislav Vidović

Ustanova: Klinika za očne bolesti Sveučilišta u Zagrebu, KBC Zagreb

Cilj: Prikazati metode i upozoriti na važnost i nedostatke dijagnostike funkcije lipidnog sloja suznog filma koji zauzima centralno mjesto u patogenezi nastanka suhog oka i njegovom liječenju.

Bolesnici i metode:

pregledno predavanje

Rezultati:

pregledno predavanje

Zaključak:

Prema podacima iznesenim na sastanku Skupine za suzni film i površinu oka

(Tear Film and Ocular Surface Society- TFOS) u Firenci 2010. god., lipidni sloj suznog filma je odgovoran za 93% svih oblika disfunkcije suznog filma. Radna skupina za disfunkciju Meibomovih žlijezda (International Workshop of Meibomian Gland Dysfunction) također je dala novu definiciju disfunkcije Meibomovih žlijezda: " Disfunkcija Meibomovih žlijezda je kroničan, difuzni poremećaj Meibomovih žlijezda , tipično karakteriziran obstrukcijom izvodnih kanalića/i ili kvantitativnim promjenama sekrecije žlijezda. To može prouzročiti promjenu suznog filma, simptome očne iritacije, klinički primjetnu upalu i bolest površine oka. Navedeni podaci upućuju na važnost i potrebu dijagnostike funkcije lipidnog sloja suznog filma te Meibomovih žlijezda u svakodnevnoj oftalmološkoj praksi.

Danas je na raspolaganju više metoda i uređaja za procjenu funkcije lipidne komponente suznog filma. Većina tih metoda lipidni sloj ispituje indirektno, prije svega mjeranjem količine i kvalitete sekreta Meibomovih žlijezda (meibometrija, ekspresija Meibomovih žlijezda, meibografija i sl.). Metode direktnе vizualizacije lipidnog sloja, semikvantitativna interferometrija, Tearscope i ručni instrument za pregled lipidnog sloja veoma se rijetko primjenjuju prije svega zbog nepraktičnosti, nepristupačnosti ili neetabliranosti.

Metodom direktne vizualizacije lipidnog sloja suza promatra se njegova debljina(LLT- Lipid Layer Thickness), stabilnost (TBUT- Tear

Break Up Time) i način formiranja po površini oka. Ova svojstva lipidnog sloja promatraju se u refleksiji svjetla s površine suznog filma, pri čemu je važno da je refleksija što veća, uniformnija i da je svjetlo bijelo.

Princip procjene debljine lipidnog sloja bazira se na činjenici da što je lipidni sloj suza deblji, to se u njemu vidi više boja (kao ulje na vodi). Tanak lipidni sloj je bez boja što upućuje na hiposekreciju, obstrukciju ili atrofiju Meibomovih žljezda, debeli ima mnoštvo boja što upućuje na normalnu sekreciju, a ako se vidi detritus problem je staze sekreta u izvodnim kanalima Meibomovih žljezda ili blefaritisu. Za potpunu evaluaciju funkcije suznog filma pacijenta, mjerjenje debljine lipidnog sloja suznog filma mora se vršiti nativno, nakon nekoliko jačih treptaja i nakon ekspresije Meibomovih žljezda.

Postojeće metode i uređaji za procjenu funkcije lipidnog sloja suznog filma zbog skupoće, komplikirane upotrebe, invazivnosti ili nepouzdanosti nisu u svakodnevnoj kliničkoj upotrebi. Stoga se naglašava potreba za uvođenjem u svakodnevnu praksu etablirane metode koja će zadovoljiti kriterije brzine, pouzdanosti, jednostavnosti, neinvazivnosti i niske cijene.

English

Title: Tear film lipid layer thickness (LLT) measurement in daily ophthalmology practice

Authors: Sania Vidas, Mirna Kliček, Marija Barišić- Kutija, Igor Petriček, Tomislav Vidović

Institution: Zagreb University Hospital Eye Department, Zagreb, Croatia

Aim: To present methods and to alert to paucity in tear film lipid layer thickness diagnostics that is currently regarded as the most significant factor in Dry Eye Disease (DED) pathogenesis and following therapy.

Patients and methods:

review presentation

Results:

review presentation

Conclusion:

According to Tear Film and Ocular Surface Society (TFOS) conclusions, (Florence 2010), tear film lipid layer dysfunction is considered to account for 93% of all cases of tear film dysfunction. International Workshop of Meibomian Gland Dysfunction brought current scientific

background to MGD diagnostics. "Meibomian gland dysfunction (MGD) is a chronic, diffuse abnormality of the meibomian glands, commonly characterized by terminal duct obstruction and/or qualitative/quantitative changes in the glandular secretion. This may result in alteration of the tear film, symptoms of eye irritation, clinically apparent inflammation, and ocular surface disease", warranting MGD and Tear film lipid layer function daily routine assessment.

Nowadays, there are some methods and instruments of tear film lipid layer measurement that mainly examine tear film lipid layer thickness indirectly by assessing quantity and quality of Meibomian gland secretion (meibometry, Meibomain gland expression, meibography). Direct methods of tear film lipid layer visualization like semiquantitative interferometry, Tearscope, handheld tear film lipid layer thickness measuring tool are rarely part of clinical routine due to their high price, difficult procedure or invasiveness.

Direct methods of tear film lipid layer visualization examine Lipid Layer Thickness (LLT) and lipid layer stability (TBUT- Tear Break Up Time) over the ocular surface, which can be observed in the diffuse light reflection on the lipid layer surface.

The principle of lipid layer thickness assessment is based on the fact that the thicker layer exhibits more colors (like oil on water), what represents normal Meibomain gland secretion. In case of Meibomain gland hyposecretion, obstruction or atrophy, the colors are not seen. Detritus in tear film is a sign of Meibomain gland terminal ducts obstruction or even gland infection (blepharitis). To completely evaluate patient's tear film lipid layer function, measurement has to be performed before and after few blinks and Meibomain gland expression.

However, existing methods and instruments of tear film lipid layer measurement are mostly not accepted by ophtalmologists primarily due to their price, imprecision, or complicated usage. Therefore, emphasis is put on the need to introduce in everyday clinical practice a tear film lipid layer measurement method that is evidence-based, fast, simple, cheap and non invasive.

Naslov: Da li je mozak krajnje odredište silikonskog ulja?

Autori: Dujmović L1, Zorić Geber M1, Benčić G1, Pavičić Astaloš J2, Vatavuk Z1.

Ustanova: 1 Klinika za očne bolesti, KBC "Sestre milosrdnice", Zagreb 2 Očni odjel, Opća bolnica "T. Bardek", Koprivnica

Cilj: Do sada su u literaturi opisani pojedinačni slučajevi bolesnika s prodom silikonskog ulja u intrakranijalne strukture nakon provedene pars plana vitrektomije. Cilj ovog rada je prikazati pojavnost silikonskog ulja u moždanim strukturama nakon rutinske operacije ablacijske mrežnice.

Bolesnici i metode:

Kod 37 bolesnika operiranih zbog regmatogene ablacijske mrežnice pomoću pars plana vitrektomije s instilacijom silikonskog ulja učini se snimanje mozga i orbita magnetskom rezonancijom. Iz studije su isključeni bolesnici kojima je silikonsko ulje instilirano dva ili više puta. Svim bolesnicima snimanje magnetskom rezonancijom je uključivalo T1, T2 i STIR sekvene. Snimanje je učinjeno pomoću aparata za magnetsku rezonanciju Siemens Magnetom Harmony 1.5T.

Rezultati:

Prosječno trajanje endotamponade silikonskim uljem iznosilo je 212 ± 23 dana prije snimanja magnetskom rezonancijom. Nismo pronašli znakova migracije silikonskog ulja u područje orbite, vidnog živca, odnosno intracerebralne strukture.

Zaključak:

Intrakranijalna migracija silikonskog ulja je rijetka pojava vjerojatno povezana s duljinom trajanja endotamponade, odnosno predisponirajućim očnim abnormalnostima.

English

Title: Is the brain final pathway of silicone oil?

Authors: Dujmović L1, Zorić Geber M1, Benčić G1, Pavičić Astaloš J2, Vatavuk Z1.

Institution: 1 University department of ophthalmology, Universitiy clinical hospital "Sestre milosrdnice", Zagreb 2 Department of

ophthalmology, General hospital "T. Bardek", Koprivnica

Aim: Intracranial migration of silicone oil after routine pars plana vitrectomy has so far been only sporadically described in the literature. Our goal was to show the incidence of silicone oil in cerebral structures after retinal detachment surgery.

Patients and methods:

Magnetic resonance imaging was obtained in 37 patients after pars plana vitrectomy and silicone oil endotamponade. Patients with a previous history of intraocular silicone oil were excluded from the study. In all patients magnetic resonance imaging included T1, T2 and STIR sequences. Imaging was performed using Siemens Magnetom Harmony 1.5T.

Results:

Magnetic resonance imaging was performed after the mean period of 212 ± 23 days following silicone oil instillation. No sign of orbital, optic nerve or intracerebral migration of silicone oil was found.

Conclusion:

Intracranial migration of silicone oil is a rare event, and it might be correlated with the duration of endotamponade or predisposing eye abnormalities.

Naslov: Multifokalni melanom žilnice- prikaz slučaja
Autori: Dujmović L, Ivezović R, Benčić G, Vatavuk Z, Mandić Z.
Ustanova: Klinika za očne bolesti, KBC "Sestre Milosrdnice", Zagreb

Cilj: Prikazati slučaj bolesnice sa dva neovisna melanoma žilnice u jednom oku.

Bolesnici i metode:

Učinjena je potpuna klinička obrada bolesnice, uključujući širokokutnu fluoresceinsku angiografiju, ultrazvuk, magnetsku rezonancu mozga i orbita, te se ne pronađe znakova udaljenih metastaza. Nakon enukleacije očne jabučice načini se patohistološka analiza.

Rezultati:

Patohistološkom analizom prikazala su se dva neovisna melanoma žilnice. Veći tumor bio je dimenzija 12×5 mm i građen je od epiteloidnih stanica. Manji tumor bio je dimenzija 3×1 mm i građen je od mješovitih stanica.

Zaključak:

Multifokalni melanom žilnice jednog oka je izuzetno rijetka pojava. U svijetu je do sada opisano 20 slučajeva. Nije poznat predisponirajući čimbenik za njegov nastanak.

English

Title: Multifocal choroidal melanoma in one eye- case report

Authors: Dujmović L, Ivezović R, Benčić G, Vatavuk Z, Mandić Z.

Institution: University department of ophthalmology, Universitiy clinical hospital "Sestre milosrdnice", Zagreb

Aim: To describe a case of a patient with two separate choroidal melanomas in one eye.

Patients and methods:

We performed a complete clinical evaluation of the patient, including widefield fluorescein angiography, B scan echography, magnetic resonance imaging of the brain and orbits. There were no signs of systemic dissemination. Patohistological evaluation was performed

after enucleation of the eyeglobe.

Results:

Pathological evaluation revealed two separate choroidal melanomas. The larger tumor measured 12 x 5 mm, and was composed of epithelioid cells. The smaller tumor measured 3 x 1 mm, and was composed of mixed cells.

Conclusion:

Multifocal choroidal melanoma in one eye is extremely rare. So far, there are only 20 cases reported in the literature. A predisposing factor for this condition is not known.

Naslov: Mikroincizijska pars plana vitrektomija s uporabom troakara s valvulama

Autori: Bosnar Damir, Šarić Borna, Kuzmanović Elabjer Biljana

Ustanova: Klinika za očne bolesti, Klinička bolnica „Sveti Duh“, Medicinski fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku

Cilj: prikazati prednosti uporabe troakara s valvulama tijekom pars plana vitrektomije

Bolesnici i metode:

Primjena troakara s valvulama tijekom pars plana vitrektomije omogućuje stabilni intraokularni tlak bez bijega tekućine u području same rane kao i kroz prazni troakar. Time značajno pomažu u sprječavanju inkarceracije staklastog tijela kao i retine.

Rezultati:

Primjena troakara s valvulama tijekom pars plana vitrektomije omogućuje stabilni intraokularni tlak bez bijega tekućine u području same rane kao i kroz prazni troakar. Time značajno pomažu u sprječavanju inkarceracije staklastog tijela kao i retine. Smanjenje varijacija intraokularnog tlaka može značajno reducirati rizik ozbiljnih intraoperativnih komplikacija kao što su koroidalno i retinalno krvarenje uzrokovano turbulencijom tekućine i hipotonijom. Sve prethodno navedene prednosti imaju značajnu ulogu tijekom pars plana vitrektomije, a osobito u operaciji prethodno vitrektomiranog oka, gdje doprinose značajnom intraoperativnom smanjenju gubitka tekućine. Između ostalih prednosti troakari s valvulama čine suvišnom primjenu čepova za njihovo zatvaranje pri izvođenju kombiniranih procedura

Zaključak:

Troakari s valvulama predstavljaju rješenje koje može voditi povećanoj sigurnosti izvođenja vitrektomije.

English

Title: Microincisional vitrectomy surgery with valved cannulas

Authors: Bosnar Damir, Šarić Borna, Kuzmanović Elabjer Biljana

Institution: University Eye Clinic, University Hospital „Sveti Duh“, Faculty of Medicine, Josip Juraj Strossmayer University of Osijek

Aim: To present advantages of valved cannulas usage during pars

plana vitrectomy

Patients and methods:

Usage of valved cannulas offers stable pressure without intraoperative wound leakage and aqueous reflux through an empty cannula preventing vitreous and retinal incarceration.

Results:

Reduced variations of intraocular pressure can prevent serious intraoperative complications like choroidal and retinal hemorrhage caused by turbulence and hypotony. All mentioned advantages plays important role in vitrectomy surgery, and specially in a vitrectomised eye preventing profuse saline reflux. Valved cannulas performances permits reduction of usage sclerotomy plugs in combined procedures.

Conclusion:

Among many advantages present in developing microincisional surgery valved cannulas present a new solution which can lead to increased safety of vitrectomy.

Naslov: Hirurška korekcija involutivnih poremećaja položaja očnih kapaka

Autori: Žikić Zoran , Bogdanović Miroljub

Ustanova: Gamma Medicina Okuloplastična Hirurgija i Očna Protetika, Beograd, Srbija

Cilj: Evaluacija hirurških procedura za korekciju involucione ptoze, ektropiona i entropiona

Bolesnici i metode:

Retrospektivna analiza 134 operisanih slučajeva. Različite hirurške tehnike su korišćene u zavisnosti od specifičnog tipa i stepena malpozicije. Tretirano je 34, 52 i 48 slučajeva ektropiona, entropiona i ptoze, respektivno. Period praćenja je bio 6 meseci postoperativno.

Rezultati:

Dobra postoperativna pozicija i apozicija je postignuta u 33 (96%) slučajeva ektropiona. U 2 (6%) slučajeva entropiona je tokom praćenja došlo do recidiva. U 40 (83%) slučajeva ptoze postignuta je zadovoljavajuća pozicija i kontura gornjeg kapka.

Zaključak:

Hirurške metode treba da budu usmerene ka rešavanju uzročnih faktora, efektne ali minimalno invazivne. Čak i kod najadekvatnije tehnike moguće su individualne varijacije u postoperativnom ishodu.

English

Title: SURGICAL CORRECTION OF INVOLUNTARY EYELID MALPOSITIONS

Authors: Žikić Zoran , Bogdanovic Miroljub

Institution: Gamma Medicine Oculoplastic Surgery and Ocular Prosthetics, Belgrade, Serbia

Aim: To evaluate surgical procedures for the correction of involuntional ptosis, ectropion and entropion

Patients and methods:

Retrospective analysis of 134 operated cases. Different surgical methods were used with respect to the specific type and severity of malposition. There were 34, 52 and 48 cases of ectropion, entropion and ptosis, respectively. The follow up period was 6 months postoperatively.

Results:

Good postoperative position and apposition was achieved in 33 (96%) ectropion cases. In 2 (6%) entropion cases there was a recurrence during the follow up period. In 40 (83%) ptosis cases, a satisfactory upper lid position and contour was achieved.

Conclusion:

The surgical methods should be aimed at the causative factors, effective but minimally invasive. Even with the most adequate technique the outcome is subject to variation.

Naslov: Ugradnja torične IOL kod pacijenta s mrenom i keratokonusom

Autori: Medic A., Žuljan I., Jukić T.

Ustanova: Očna poliklinika Medić, Žuljan ,Jukić

Cilj: Prikaz slučaja ugradnje torične intraokularne leće kod pacijentice s keratokonusom i mrenom

Bolesnici i metode:

Pacijentica M.Z., stara 38g sa obostranom mrenom i slikom iregularnog miopskog astigmatizma zbog keratokonusa koji je verificiran kornealnom topografijom(pentacam).

Rezultati:

Statisticaly significant differences were observed between preoperative and postoperative UCDVA.

Zaključak:

Phacoemulzifikacija mrene i ugradnja torične intraokularne leće se pokazala kao efikasna metoda korekcije iregularnog miopskog astigmatizma kod pacijentice sa mrenom i keratokonusom.

English

Title: Toric intraocular lens implantation in patient with cataract and keratoconus

Authors: Medic A.; Zuljan I.; Jukic T.

Institution: Private Eye Center Medic, Zuljan, Jukic

Aim: To describe the outcome of toric intraocular lens implantation in patient with cataract and keratoconus

Patients and methods:

Patient M.Z. with cataract and topografic images consistent with keratoconus

Results:

Statisticaly significant differences were observed between preoperativ and postoperative UCDVA.

Conclusion:

Cataract removal with implantation of a toric IOL provides fast visual rehabilitation for keratoconic patients with cataract.

Naslov: Endokanalikularna diodno laserska dakriocistorinostomija

Autori: Ivezkovic R,Zrinščak O,Mandić Z

Ustanova: KBC\ "Sestre milosrdnice\" Klinika za očne bolesti

Cilj: Ocijeniti rezultate, efikasnost i komplikacije endokanalikularna laserske dakricistorinostomije.

Bolesnici i metode:

U ovu studiju uključeno je 17 bolesnika s obstrukcijom suzonosnoga kanaliča.Osteotomija je postignuta pomoću laserske energije koja je aplicirana optičkim vlaknom kroz suzne kanaliće. Na kraju operacije provedena je intubacija bikanalikuarnom silikonskom cijevčicom.

Rezultati:

U postoperativno razdoblju praćena je odsutnost epifore i drenirane suznog sistema . Svi bolesnici bili su zadovoljni postignutim rezultatima.

Zaključak:

Endokanalikularna diodno laserska dakriocistorinostomija novi je doprinos operaciji suznih kanala . To je minimalno invazivna tehnika , koju dobro podnose bolesnici i ima dobre kozmetske rezultate.

English

Title: Endocanicular diode laser dacryocystorhinostomy

Authors: Ivezkovic R,Zrinščak O,Mandić Z

Institution: KBC\ "Sestre milosrdnice\" Klinika za očne bolesti

Aim: To evaluate results, effectiveness and operative results as well complications of the endolaser diode laser dacryocystorhinostomy

Patients and methods:

Seventeen patients with nasolacrimal duct obstruction were included in the study. The operation was performed under general anesthesia. The osteotomy was achieved by laser energy via optic fiber through lacrimal canicular system. On the end of the surgery bicanalicular silicon stent was inserted.

Results:

In postoperative period the absence of epiphora and potency of the lacrimal drainage system on irrigation was controlled. All patients were satisfied with achieved results.

Conclusion:

Endocanalicular diode laser dacrycystorhinostomy is a new contribution in the surgery of lacrimal canals. It is minimally invasive technique, easily tolerated by the patients and cosmetically preferred.

Naslov: FDT i Octopus perimetrija u ranoj dijagnostici POAG-a
Autori: Barać Josip, Gruber Barbara, Matić Suzana, Biuk Dubravka, Bradvica Mario i Mandić Zdravk
Ustanova: Odjel za očne bolesti KBC Osijek, Osijek

Cilj: FDT i Octopus perimetrija u ranoj dijagnostici POAG-a

Bolesnici i metode:

Istraživanje je provedeno na Odjelu za očne bolesti Kliničke bolnice Osijek na 250 ispitanika podijeljenih u četiri rizične skupine za pojavu primarnog glaukoma otvorenog kuta (u svakoj skupini 50 ispitanika) svi stariji od 40 godina, kao i 50 ispitanika u kontrolnoj skupini.

Prvu rizičnu skupinu za pojavu primarnog glaukoma otvorenog kuta činili su dijabetičari tip I i tip II, drugu rizičnu skupinu činili su ispitanici s arterijskom hipertenzijom (RR > 140/90 mmHg), treću osobe s pozitivnom obiteljskom anamnezom za primarni glaukom otvorenog kuta i četvrtu rizičnu skupinu činili su kratkovidni ispitanici s refrakcijom od « -3,0 » dioptriјe do «- 8,0 » dioptrija.

Kontrolnu skupinu činili su ispitanici od 40 godina bez rizičnih čimbenika za POAG, i to dalekovidne osobe i presbiopi korigirani ili bez korekcije, centralne vidne oštrine 0.3 – 1,0.

Rezultati:

U svim rizičnim i kontrolnoj skupini zajedno, FDT je registrirao promjene kod 28 (11.2%) pacijenata, a Octopus kod 15 (6%) pacijenata. Usporedbom p vrijednosti pokazuje se da je ova razlika statistički značajna. Treba napomenuti da je Octopus registrirao promjene kod 46% pacijenata manje u odnosu na FDT.

Zaključak:

FDT je osjetljivija metoda za detekciju promjena u vidnom polju nego Octopus. U svim rizičnim i kontrolnoj skupini zajedno, FDT je registrirao promjene kod 28 (11.2%) pacijenata, a Octopus kod 15 (6%) pacijenata. Usporedbom p vrijednosti pokazuje se da je ova razlika statistički značajna.

English

Title: FDT and Octopus perimetry in the early diagnostic of primary

open - angle glaucoma

Authors: Barać Josip, Gruber Barbara, Matić Suzana, Biuk

Dubravka, Bradvica Mario i Mandić Zdravk

Institution: Department of Ophthalmology, Clinical hospital centre Osijek

Aim: To detect early visual field defects in FDT and Octopus perimetry testing, as well as to compare the sensitivity of these methods.

Patients and methods:

The study has been conducted at the Ophthalmology department of University hospital Osijek and has included 250 subjects divided in four groups predisposed to develop primary open angle glaucoma. Each group of patients consisted of 50 subjects older than 40 years and the control group which comprised 50 patients.

The first group inclined to develop primary open angle glaucoma (POAG) consisted of patients with diabetes type I and II, the patients in the second group had arterial hypertension ($RR > 140/90 \text{ mmHg}$); the third group had a positive family history for primary open angle glaucoma and in the fourth group were myopic patients with myopia of -3 to -8 Dpt.

The control group consisted of patients older than 40 years without risk factors for primary open angle glaucoma, the farsighted subjects and presbyopic subjects with or without presbyopic correction, who had central visual acuity of 0.3

Results:

In all four groups, including the control group, FDT perimetry has recorded changes in 28 patients (11.2%) and Octopus perimetry in 15 patients (6%). The comparison of the p value has shown a statistically significant difference between these findings. It should be mentioned that the Octopus perimetry recorded changes in 46% patients less compared to FDT.

Conclusion:

FDT is more sensitive method to detect changes in the visual field than Octopus perimetry. In all groups of patients predisposed to develop POAG as well as the control group, FDT perimetry has recorded changes in 28 patients (11.2%) and Octopus perimetry in 15 patients (6%). The comparison of the p value has shown a statistically significant difference between these findings.

Naslov: Korelacija između morfologije makularnog edema kod pacijenata sa dijabetičkom retinopatijom i vidne oštrine
Autori: F.Gilevska, R.Motušić, M.Štanfel, N.Vukojević, T.Jukić
Ustanova: KBC Zagreb, Klinika za očne bolesti

Cilj: Prikazati povezanost između morfologije makularnog edema kod dijabetičke retinopatije i vidne oštrine

Bolesnici i metode:

Prospektivno ispitivanje koje je uključilo 150 ispitanika sa dijabetičkom retinopatijom i makularnim edemom u intervalu od 6 mjeseci. Svim pacijentima je učinjen klinički pregled, OCT, foto fundus, FAG, FAF na osnovu čega su klasificirani u 8 morfoloških kategorija

Rezultati:

Prezentirati ćemo preliminarne rezultate istraživanja.

Zaključak:

Postoji statistički značajna povezanost između vidne oštrine i morfološkog izgleda makularnog edema.

English

Title: Morphology of Diabetic macular edema in correlation with Visual acuity

Authors: F.Gilevska, R.Motušić, M.Štanfel, N.Vukojević, T.Jukić

Institution: Clinical Hospital Zagreb, Department of ophthalmology

Aim: To show correlation between the morphology of macular edema and visual acuity.

Patients and methods:

Prospective study that included 150 patients with diabetic retinopathy and macular edema, in the interval of 6 months. All of them underwent clinical examination, OCT, Fundus photography, FAG, FAF and they were classified into 8 morphological categories of macular edema according OCT features

Results:

Preliminary clinical data will be presented.

Conclusion:

The study showed significant correlation between the morphological type of macular edema and visual acuity

Naslov: Dijagnostička vrijednost ONH analize dobivene optičkom koherentnom tomografijom SOCT Copernicustom (Optopol Technology S.A.) u odnosu na stadij glaukoma prema FDT- GSS sistemu klasifikacije

Autori: Sonja Jandroković, Prof.dr.sc.Smiljka Popović Suić,

Marija Barišić, Prof.dr.sc.Branimir Cerovski

Ustanova: KBC Zagreb, Rebro

Cilj: Ustanoviti vrijednost podataka ONH analize dobivenih mjeranjem na SOCT Copernicus aparatu za dijagnozu ili procjenu stadija glaukoma.

Bolesnici i metode:

Bolesnici: Bolesnici s primarnim glaukomom otvorenog kuta podijeljeni prema funkcionalnom statusu u skladu s nalazom vidnog polja u tri grupe: 1. predglaukomska grupa (stadij 0 i granični - 30 ispitanika), 2. početni glaukom (stadij 1 i 2 - 30 ispitanika), 3. razvijeni glaukom (stadij 3, 4 i 5 - 30 ispitanika). Ukupno 90 očiju od 90 ispitanika.

Metode: Koristeći standardnu perimetriju (Haag Streit Octopus 900, G program) pacijenti su podijeljeni prema GSS (Glaucoma Staging System, Brusini and Johnson) klasifikaciji u tri grupe: predglaukom, početni glaukom i razvijeni galukom. Strukturalni parametri analize glave vidnog živca dobiveni su optičkom koherentnom tomografijom (SOCT Copernicus; OPTOPOL technology S.A). Parametri ONH analize statistički (student t-test) su uspoređivani između grupa.

Rezultati:

Područje ruba tzv. rim area ima najznačajniju povezanost s progresijom glaukoma (površina i volumen ruba). Važno je naglasiti da su sve grupe imale prosječno sličnu veličinu diska. Usporedbom podataka za ekskavaciju (cup area i cup volume), ustanovljena je statistički zanačajna razlika između grupe predglaukoma i razvijenog glaukoma, ali nije bilo statistički značajne razlike između grupe predgalukoma i početnog glaukoma.

Zaključak:

Dijagnostička vrijednost analize glave vidnog živca nije značajna ukoliko se izolirano razmatra. Međutim, s obzirom da postoji značajna razlika u vrijednostima razvijenog glaukoma ne treba podcijentti vrijednost ONH analize. U sklopu razmatranja strukturalnih i funkcionalnih promjena, ONH analiza se treba evaluirati individualno.

English

Title: The diagnostic value obtained by ONH analysis of optical coherence tomography SOCT Copernicus (Optopol Technology SA) in relation to the stage of glaucoma according to FDT-GS classification system

Authors: Sonja Jandroković, Prof.dr.sc.Smiljka Popović Suić, Marija Barišić, Prof.dr.sc. Branimir Cerovski

Institution: KBC Zagreb, Rebro

Aim: To determine the value of data obtained by ONH analysis of SOCT Copernicus measurement for the diagnosis or evaluation stages of glaucoma.

Patients and methods:

Glaucoma patients were categorized according to functional status (visual field analysis) in three groups : 1. Preglaucoma group (stage 0 and border - 30 participants), 2. Early glaucoma group (stage 1, 2 - 30 participant) and 3. Advaced glaucoma group (stage 3, 4, 5 - 30 participant.)

A total of 90 eyes from 90 subjects.

Using standard perimetry (Haag Streit Octopus 900, G program), patients were divided

according the FDT- GSS (Glaucoma Staging System, Brusini and Johnson) in three groups: 1. Preglaucoma group, 2. Early glaucoma group and 3. Advaced glaucoma group.

Structural parameters of the optic nerve head were imaged by optical coherence tomography (SOCT Copernicus; OPTOPOL Technology S.A) optic disc mode. The discrimination power of each OCT parameter was statistically evaluated in all groups and all data were compared.

Results:

Rim area showed the strongest correlation with glaucoma progression (rim area and rim volume). It is important to emphasize that all groups had equal average size of the disk. Comparison of parameters for the cup area and cup volume has shown that there is a difference that was statistically significant between the preglaucoma group and the advanced glaucoma group. There was no statistically significant difference in any ONH parameter between the preglaucoma and early glaucoma group.

Conclusion:

Is questionable diagnostic value of ONH parameters, if considered in isolation of other parameters. However we must take into account that the progression clearly sees the differences in certain parameters. In consideration of structural and functional changes, ONH analysis should be evaluated on the individual basis.

Naslov: 23 G vitrektomija kod vitreomakularnog trakcijskog sindroma sa rupturom makule
Autori: Damir Kovačević, Vedran Markušić
Ustanova: KBC Rijeka, Klinika za oftalmologiju

Cilj: Analizirati učinkovitost 23 G PPV kod vitreomakularnog trakcijskog sindroma sa rupturom makule

Bolesnici i metode:

Retrospektivna studija 21 pacijenta sa vitreomakularnom trakcijom i rupturom makule. Slijedeći parametri su analizirani: dob, spol, preop. vidna oštrina, epiretinalne membrane, OCT makule, stražnja hijaloidna membrana, intraoperativne komplikacije, tip tamponade, duljina pozicioniranja sa glavom dolje, krajnja vidna oštrina i zatvorenost ruptura makule.

Rezultati:

Nakon perioda praćenja od 12 mј., 90 % ruptura makule je zatvoreno. Vidna oštrina je poboljšana u 81 % pacijenata i to prosječno za 2 linije Snellen tablica.

Zaključak:

23 G PPV i tamponada plinom za rupture makule sa vitreoretinsalnim trakcijama poboljšava vidnu oštrinu.

English

Title: 23 Gauge Vitrectomy for Vitreomacular Traction Syndrom with Macular Holes

Authors: Damir Kovačević, Vedran Markušić

Institution: Clinical Hospital Center Rijeka, Ophthalmology Department

Aim: To evaluate PPV for VMTS with macular hole formation.

Patients and methods:

Retrospective study of 21 patients with vitreomacular pathology with macular hole formation. The following parameters were analysed: age, gender, preoperative visual acuity, epiretinal membranes, attachment of posterior hyaloid, intraoperative complications, type of tamponade used, duration of prone positioning, final visual acuity and hole closure.

Results:

After a mean follow up of 12 months, 90% of macular holes were closed, The visual acuity increased in 81% of patients with mean

improvement of 2 Snellen lines.

Conclusion:

23 Gauge PPV and gas tamponade for vitreomacular tractions with macular holes improve the visual acuity

Naslov: Terapijske mogućnosti glaukoma tijekom trudnoće – prikaz slučaja

Autori: Tigrena Csik¹, J.Pavičić –Astaloš²

Ustanova: 1 Poliklinika Ghetaldus, Zagreb, Hrvatska ,2JSD oftalmologije, OB Koprivnica, Hrvatska

Cilj: Cilj ovoga prikaza slučaja je opisati bolesnicu sa glaukomom otvorenog kuta koja je na antiglaukomskoj terapiji, a odlučila se na trudnoću.

Bolesnici i metode:

: 45-godišnja bolesnica koja boluje od glaukoma otvorenog kuta, sa pozitivnom obiteljskom anamnezom unazad dvije generacije, odlučila se za treću trudnoću. Bolesnica je na antiglaukomskoj terapiji od svoje 31. godine života. Unazad dvije godine radi alergijskih reakcija bolesnica je na topikalnoj terapiji bez konzervansa. U trećem mjesecu trudnoće kada se javila na pregled upućena je na lasersko liječenje koje je bilo insuficijentno, te se i dalje tijekom trudnoće bolesnica ostavi na topikalnoj antiglaukomskoj terapiji bez konzervansa. Nakon poroda dijete je stavljeno na umjetnu prehranu radi majčinih poteškoća prilikom dojenja.

Rezultati:

Topikalna antiglaukomska terapija tijekom trudnoće nije dovela do ikakvih organskih promjena kod djeteta.

Zaključak:

Kombinirana terapija dorzoloamida i timolola bez konzervansa tijekom trudnoće pokazala se efikasna u snižavanju intraokularnog tlaka majke bez ikakvih posljedica na razvoj djeteta.

English

Title: Glaucoma therapeutic possibilities during pregnancy – case report

Authors: Tigrena Csik¹, J.Pavičić –Astaloš²

Institution: 1 Polyclinic Ghetaldus, Zagreb, Hrvatska, 2Ophthalmology department, General hospital Koprivnica, Hrvatska

Aim: This case report presents a pregnant patient with open angle glaucoma treated with antiglaucoma topical preservative free therapy.

Patients and methods:

45- year old female suffering from open angle glaucoma, with positive family history in two generations, applied for an exam when she was pregnant for 10 weeks with her third child. She has been treating

glaucoma for the last 14 years. Since 2 years, because of alergic ocular reactions she was under preservativ free topical antiglaucoma therapy. In third month of pregnancy the patient was treated withYAG laser, but without sufficient effect. Her local therapy was continued. After the delivery, because of her problems with breast feeding, the baby was put on artifficial diet.

Results:

Topical antiglaucoma therapy during pregnancy did not cause any organic pathology in a child.

Conclusion:

Combined therapy of dorzolamide plus timolol preservative free during pregnancy seems to be a good choice for intaocular pressure controll without any consequences on the child development.

Naslov: Liječenje prednje ishemičke optikoneuropatije farmakološkim dozama kortikosteroida – preliminarni rezultati
Autori: Tomislav Vidović, Branimir Cerovski, Ivan Škegro,
Zlatko Juratovac
Ustanova: KBC Zagreb

Cilj: prikazati preliminarne rezultate liječenja prednje ishemičke optikoneuropatije farmakološkim dozama kortikosteroida

Bolesnici i metode:

U 12 bolesnika (7 muškaraca i 5 žena) s prednjom ishemičkom optikoneuropatijom primjenjeno je liječenje farmakološkim dozama kortikosteroida. Osim standardne oftalmološke opservacije, učinjeno je testiranje vidnog polja, OCT makule i PNO, VEP.

Rezultati:

U većine bolesnika uočen je oporavak vidne funkcije, dok je u jednog bolesnika nastupilo pogoršanje vida.

Zaključak:

Preliminarni rezultati mogu pokazati nadu za liječenje prednje ishemičke optikoneuropatije.

English

Title: Treatment of anterior ischemic neuropathy with pharmacological doses of corticosteroids - preliminary results

Authors: Tomislav Vidović, Branimir Cerovski, Ivan Škegro, Zlatko Juratovac

Institution: KBC Zagreb

Aim: To present preliminary results of treatment of anterior ischemic neuropathy with pharmacological doses of corticosteroids.

Patients and methods:

Treatment with pharmacological doses of corticosteroids is applied in 12 patients (7 men and 5 women) with anterior ischemic neuropathy. Testing of visual fields, optic disc and macular OCT, VEP is performed in addition to standard ophthalmological observations.

Results:

In most patients, a recovery of visual function has been noted, while in one patient worsening of vision occurred.

Conclusion:

Preliminary results show hope for the treatment of anterior ischemic neuropathy.

Naslov: Neželjene i popratne pojave u liječenju

kortikosteroidima

Autori: Tomislav Vidović, Ivan Škegro, Branimir Cerovski,

Zlatko Juratovac, Marija Škara Kolega

Ustanova: KBC Zagreb

Cilj: Cilj: prikazati nuspojave liječenja kortikosteroidima

Bolesnici i metode:

Ispitanici i metode: Tijekom 7 godišnjeg razdoblja 87 bolesnika liječeno je kortikosteroidnom terapijom i podijeljeni su u dvije skupine. U prvoj skupini nalaze se ispitanici koji su zbog akutnog optičkog neuritisa liječeni pulsnim dozama kortikosteroida, dok se druga skupina sastoji od ispitanika koji su liječeni farmakološkim dozama kortikosteroida. Osim standarne oftalmološke opservacije, učinjena je neurološka, internistička, laboratorijska i po potrebi psihijatrijska opservacija

Rezultati:

Rezultati: najčešće nuspojave su poremećaji spavanja i ponašanja, povišenje krvnog tlaka i hiperglikemija

Zaključak:

Zaključak: prilikom liječenja stroidima treba misliti i na nuspojave kortikosteroida

English

Title: Side effects of steroid therapy

Authors: Tomislav Vidović, Ivan Škegro, Branimir Cerovski, Zlatko Juratovac, Marija Škara Kolega

Institution: KBC Zagreb

Aim: Aim: To show side effects of corticosteroid therapy

Patients and methods:

Patients and methods: During 7 years 87 patients were treated with corticosteroid therapy and they were divided into two groups. The first group consisted of patients with acute optic neuritis treated with pulse steroid therapy. In the second group are patients with various types of optic neuropathy treated with pharmacological dosage of steroids.

Every patient underwent ophthalmologic and neurological examination, and when it was needed also psychiatric.

Results:

Results: The most common side effects are sleeping disturbances, hypertension and secondary diabetes mellitus.

Conclusion:

Conclusion: Before administration of steroid therapy, you should be aware of side effects.

Naslov: Rezultati duboke sklerektomije sa 5-Fluorouracilom kod glaukoma otvorenog kuta te pseudoeksfolijativnog glaukoma

Autori: Stanić R, Bojić L, Kovačić Ž, Rogošić V, Stanić Jurašin K

Ustanova: Klinički bolnički centar Split, Klinika za očne bolesti

Cilj: Procijeniti postotak uspješnosti i komplikacije kod duboke sklerektomije sa 5-Fluorouracilom kod glaukoma otvorenog kuta te pseudoeksfolijativnog glaukoma.

Bolesnici i metode:

Ovo nerandomizirano prospektivno istraživane uključivalo je 30 očiju (30 pacijenata) sa primarnim ili sekundarnim glaukomom otvorenog kuta, koji medikamentozno nisu bili uspješno kontrolirani. Prije operacije izmjerena je intraokularni tlak (IOT), ispitana je vidna oštRNA te učinjen je pregled na biomikroskopu. To isto se ponovilo 1 dan i 7 dana nakon operacije, te 1 mjesec, 3 mjeseca, 6, 12, 18 i 24 mjeseci nakon operacije. Vidno polje je ispitano prije operacije te 6, 12 i 24 mjeseci nakon operacije.

Rezultati:

Prosječno vrijeme praćenja bolesnika bilo je 28 ± 3 mjeseca. Prosječni preoperativni IOT bio je $24,4 \pm 9,4$ mmHg. Prvog postoperativnog dana prosječni IOT iznosio je $8,7 \pm 3,2$ mmHg, a nakon 24 mjeseca $14,8 \pm 3,29$ mmHg. Kompletan postotak uspješnosti nakon 24 mjeseca ($IOT \leq 18$ mmHg bez antiglaukomskih lijekova) bio je 83%, a kvalificirani postotak uspješnosti ($IOT \leq 18$ mmHg sa ili bez antiglaukomskih lijekova) bio je 93%. Kod 15 pacijenata (50%) postignut je $IOT \leq 15$ mmHg bez antiglaukomskih lijekova nakon 24 mjeseca. U jednom smo slučaju imali hifemu. Nismo imali ni plitkih prednjih sobica ni progresije katarakte. Kod dvoje pacijenata došlo je do fibroze jastučića, što smo uspješno tretirali sa subkonjunktivalnom injekcijom 5-Fluorouracilom.

Zaključak:

Duboka sklerektomija omogućuje stabilnu kontrolu intraokularnog tlaka bez primjene dodatnih antiglaukomskih lijekova, te uz minimalne postoperativne komplikacije.

English

Title: Results of deep sclerectomy with 5-Fluorouracil in primary open angle and pseudoexfoliative glaucoma

Authors: Stanić R, Bojić L, Kovačić Ž, Rogošić V, Stanić Jurašin K

Institution: Clinical Hospital Centre Split, Eye Clinic

Aim: To evaluate success rate and complications of deep sclerectomy with 5-Fluorouracil in primary open angle and pseudoexfoliative glaucoma.

Patients and methods:

This nonrandomized prospective trial comprised 30 eyes of 30 patients with medically uncontrolled primary or secondary open angle glaucoma. Intraocular pressure (IOP), visual acuity, slitlamp examination were performed before surgery and after surgery 1 and 7 days, as 1, 3, 6, 12, 18, 24 months after surgery. Visual field was done before surgery and 6,12 and 24 months after surgery.

Results:

Mean follow-up period was 28 ± 3 months. Mean preoperative IOP was $24,4 \pm 9,4$ mmHg. On the first postoperative day the mean IOP was $8,7 \pm 3,2$ mmHg. After 24 months the mean postoperative IOP was $14,8 \pm 3,29$ mmHg. The complete success rate after 24 months ($IOP \leq 18$ mmHg without medication) was 83%, and qualified success rate ($IOP \leq 18$ mmHg with or without antiglaucoma medications) was 93%. Fifteen patients (50%) achieved an $IOP \leq 15$ mmHg without medication after 24 months. In one case we had hyphaema. There was no flat anterior chamber, and there was no progression of senile cataract. In two patients we had bleb fibrosis which was successfully treated with subconjunctival injection of 5-Fluorouracil.

Conclusion:

Deep sclerectomy provides stable control of IOP without additional medication, with minimum postoperative complications.

Naslov: Korekcija astigmatizma nakon operacije katarakte primjenom torične intraokularne leće

Autori: Ivanka Petric Vicković, Valentina Lacmanović

Lončar, Zdravko Mandić, Renata Ivezković, Jelena Škunca

Herman

Ustanova: KBC Sestre milosrdnice

Cilj: Cilj rada je analiza postoperativnih rezultata nakon operacije katarakte kod bolesnika s preoperativnim astigmatizmom i implantiranom toričnom intraokularnom lećom

Bolesnici i metode:

Ova studija provedena je u KBC Sestre milosrdnice, te su bolesnici operirani u period od veljače do studenog 2011. godine. Svi bolesnici uključeni u studiju imali su vizualno signifikantnu kataraktu i preoperativni rožnični astigmatizam veći od 1,5 D. Nakon operacije katarakte učinjene metodom fakoemulzifikacije kod svih bolesnika ugrađena je AT TORBI savitljiva intraokularna leća.

Rezultati:

. Tri mjeseca nakon operativnog zahvata nekorigirana postoperativna vidna oštrina bila je 0,8 ili bolja kod 9 očiju. Smanjenje cilindrične vrijednosti (medijan) 3 mjeseca nakon operativnog zahvata bilo je statistički značajno ($P<0,05$). Postoperativna rotacija IOL (medijan) iznosila je 3 stupnja, interkvartilni raspon (2 do 4 stupnja).

Zaključak:

Rezultati naše studije pokazuju da implantacija torične AT TORBI intraokularne leće nakon operacije katarakte predstavlja efikasnu kiruršku metodu za korekciju preoperativnog rožničnog astigmatizma.

English

Title: TORIC INTRAOCULAR LENS IMPLANTATION FOR ASTIGMATISM CORRECTION IN CATARACT SURGERY

Authors: Ivanka Petric Vicković, Valentina Lacmanović

Lončar, Zdravko Mandić, Renata Ivezković, Jelena Škunca Herman

Institution: Eye clinic, Clinical hospital Sestre milosrdnice

Aim: The purpose of this study is to evaluate the clinical outcomes after toric intraocular lens implantation for astigmatism correction in patients having cataract surgery.

Patients and methods:

This prospective observational study comprised eyes that had cataract surgery at University Hospital Sisters of Charity between February 2011 and September 2011. The study enrolled eyes that had visually significant cataract and preexisting regular corneal astigmatism of 1,50 D or greater. Phacoemulsification was performed and all eyes received an AT TORBI TM 709 M toric foldable IOL.

Results:

. At 3 months, the UDVA was 0,8 or better in 9 of 10 eyes. The median reduction in refractive cylinder after 3 months postoperatively was statistically significant ($P<0,05$).The median IOL axis rotation was 3,0 degrees interquartile range (2,0 -4,0 degrees).

Conclusion:

Our results show that AT TORBI is an effective surgical option to correct preexisting corneal astigmatism and spectacle dependence after cataract surgery.

Naslov: MOŽE LI OPTIČKI NEURITIS BITI MODEL ISTRAŽIVANJA MULTIPLE SKLEROZE?

Autori: Branimir Cerovski, Tomislav Vidović

Ustanova: Klinika za očne bolesti KBC Zagreb Medicinskog fakulteta u Zagrebu

Cilj: Oštećenje vida uobičajena je klinička manifestacija multiple skleroze (MS). Danas oftalmolozi uviđaju potrebu za osjetljivijim pretragama vidne funkcije

Bolesnici i metode:

Analiza podataka iz literature s ciljem postavljanja optimalnog dijagnostičkog i terapeutskog pristupa u liječenju akutnog optičkog neuritisa (ON).

Rezultati:

Ključne činjenice: Ovaj je pregled usmjeren na naprednije metode otkrivanja i mjeranja u ON i multiploj sklerozi. Kontrastna osjetljivost i druga testiranja vidne funkcije moraju biti uobičajena i značajna u liječenju ON. Danas imamo na raspolaganju OCT mjerjenja retinskog sloja živčanih vlakana u monitoriranju aksonalnog gubitka tijekom ON. OCT u MS omogućuje procjenu korelacije strukture i funkcije prednjeg vidnog puta te je stoga ON možda idealni model za testiranje novih lijekova u svrhu neuroprotekcije i oporavka. Sada se uspjeh novih terapija u cilju smanjenja aksonalnog gubitka neuroprotekcijom te mehanizmi oporavka mijelina može procijeniti neinvazivno pomoći OCT uz usporedbu s podacima funkcionalne dijagnostike. Prema OCT istraživanjima u MS bolesnika, RNFL je značajno stanjena među bolesnicima a posebno u MS očima s anamnezom ON. Ove metode sada dopuštaju kvanifikaciju neuronalnog oštećenja i aksonske degeneracije u bolesnika s MS in vivo.

Zaključak:

Nužan je razvoj boljih metoda za ranu dijagnozu, monitoriranje i lijeчењe ON. U budućnosti, možda će se moći bolje procijeniti rizik razvoja bolesnika s ON u klinički definitivnu MS što će omogućiti bolju strategiju davanja odgovarajuće terapije.

English

Title: OPTIC NEURITIS – IS IT A SYSTEM MODEL OF MULTIPLE SCLEROSIS?

Authors: Branimir Cerovski, Tomislav Vidović

Institution: Department of Ophthalmology, Medical School, University of Zagreb, Croatia

Aim: Visual dysfunction is one of the most common clinical manifestations of multiple sclerosis (MS). Today ophthalmologist recognized the need for more sensitive measures of visual function.

Patients and methods:

Analysis of literature data. The authors raise questions and stimulate discussion regarding the optimal diagnostic and therapeutic approach to patients suspected of having optic neuritis (ON).

Results:

This review focuses on more advanced methods of detecting and quantifying ON in multiple sclerosis that have been developed in the past 20 years. Contrast sensitivity and vision testing in general should be common place and important in ON treatment. Today we can use OCT measurement of the retinal nerve fiber layer in monitoring axonal loss in the course of the disease. OCT in MS has allowed for assessment of structure-function correlations that make the anterior visual pathway and acute optic neuritis (ON) ideal models for testing novel agents for neuroprotection and repair. New therapies that reduce axonal loss by neuroprotective or myelin repair mechanisms can now be assessed noninvasively by OCT and coupled with visual function data. Based on OCT studies in MS, RNFL thickness is reduced significantly among patients vs controls and is particularly reduced in MS eyes with a history of ON. These methods allow quantitation of ganglion cell layer loss and axonal degeneration in MS *in vivo*.

Conclusion:

Better methods are being developed for the earlier diagnosis, monitoring and treatment of ON. In the future, ON patients may be stratified according to their risk of development of clinically definite MS and therefore, receive the appropriate treatment.

Naslov: Limbalna relaksirajuća incizija za vrijeme operacije katarakte

Autori: Dr.Valentina Lacmanović Lončar , Dr.sci.Ivanka Petric Vicković , Prof.dr.sc. Renata Ivezović, Prof dr.sc.Z.Mandić

Dr.Jelena Škunca Herman

Ustanova: Očna Klinika KBC\''Sestre milosrdnice\''Zagreb

Cilj: .Svrha ovoga rada je analizirati učinak i stabilnost limbalne relaksirajuće incizije u reducirajućem prijeoperacijskog astigmatizma Bolesnici i metode:

Analizirali smo deset očiju kod dvanaest pacijenata kod kojih je učinjena limbalna relaksirajuća incizija za vrijeme operacije katarakte sa prijeoperacijskim astigmatizmom između 1-2 dioptrije. Analizirali smo ih prije operacije te 1,3-6 mjeseca postoperativno uključujući nekorigiranu i najbolje korigiranu vidnu oštrinu na daljinu te keratometrijske vrijednosti.

Rezultati:

Srednji preoperacijski i postoperacijski astigmatizam se kreće između 1.50 dioptrija (± 0.75) i 0.25 dioptrija(± 0.25). Ozbiljne postoperativne komplikacije nisu nađene.

Zaključak:

Limbalna relaksirajuća incizija omogućuje održiv izbor za korekciju preoperativnog astigmatizma za vrijeme operacije katarakte sa blagim komplikacijama.

English

Title: Dr.Valentina Lacmanović Lončar

Authors: Dr. Valentina Lacmanović Lončar, Dr.sci.Ivanka Petric Vicković, Prof dr.sc.Renata Ivezović, Prof dr.sc.Z.Mandić, Dr.Jelena Škunca Herman

Institution: Eye Clinic Clinical Hospital Center \''Sestre milosrdnice\'' Zagreb

Aim: Purpose of this study are to evaluate the effect and stability of LPIS in reducing preexisting astigmatism at the time of phacoemulsification.

Patients and methods:

Reviewed 12 patients 10 eyes who had limbal relaxing incisions during cataract surgery ,with pre-existing astigmatism of 1-2 diopter.

Assessments were made preoperatively ,1 3 and 6 months postoperatively,outcome measures include uncorrected distance visual acuity(UCDVA) and best corrected distance visual acuity(BCDVA) and keratometric astigmatism measures.

Results:

The mean preoperative and postoperative refractive astigmatism was 1.50 diopters(D)(\pm 0.75D) and 0.25 D(\pm 0.25 D).There were no serious postoperative complications.

Conclusion:

Limbal relaxing incisions provide a viable option for correcting preexisting astigmatism at the time of cataract surgery with mild complications.

**Naslov: Angularni kronični glaukom
Uloga fakoemulzifikacije u patogenezi i liječenju
Autori: Zdravko Mandić, Katja Novak, Ivanka Petric, Valentina Lacmanović
Ustanova: KBC "Sestre milosrdnice**

Cilj: Analizirati koja je uloga fakoemulzifikacije u kirurškom liječenju angularnog glaukoma

Bolesnici i metode:

U retrospektivnoj studiji analizirati sve operirane bolersnike unatrag dvije godine s posebnom pozornošću na intraoperativne komplikacije, IOT te vidnu oštrinu.

Rezultati:

Biti će analizirani rezultati vidne oštine čestoće kapanja te intraoperativni i ranih postoperativnih komplikacija. Također će vlastiti rezultati biti u obliku preglednog članka uspoređeni i analizirani u kontekstu sličnih publiciranih studija o istoj problematiki.

Zaključak:

U određenom postotku analiziranih slučajeva nalazi se vrlo povoljan učinak fakoemulzifikacije na rezultate vine oštine i IOT.

English

Title: Angle closure glaucoma:the role of phakoemulsification in the pathogenesis and treatment

Authors: Zdravko Mandić, Katja Novak, Ivanka Petric, Valentina Lacmanović

Institution: KBC SEstre milosrdnice

Aim: to evaluate patients with angle closure glaucoma

Patients and methods:

Last 2 year all patients with cataract and angle closure glaucoma were evaluated

Results:

Results will be showed

Conclusion:

Phacoemulsification is effective method in treatment angle closure glaucoma.

Naslov: Vitritis uzrokovan familijarnom amiloidozom

Autori: Karaman K, Znaor Lj, Matas A, Marin Lovrić J, Filipović-Grčić, Čulić V

Ustanova: KBC Split, Klinika za očne bolesti

Cilj: Prikazati kliničku sliku očne manifestacije rijetke bolesti familijarne amilidoze koja je pomogla u postavljanju konačne dijagnoze.

Bolesnici i metode:

Pacijent, 47 godina star, zaprimljen je po drugi put na Kliniku za očne bolesti KBC Split zbog slabljenja vida lijevog oka. U prvoj hospitalizaciji 2008. g. obrađivan je u smislu vaskulitisa mrežnice oba oka nespecifične etiologije. Od 2003. g. ima senzomotornu polineuropatiju, hipertrofičnu kardiomiopatiju, dijareju i neurogeni mjehur te 2008. g. ugrađen pacemaker defibrilator. U obradu bolesnika uključena je ehografija (UZ), fluoresceinska angiografija (FA), vidno polje (Octopus LVP), vidni evocirani potencijali (VEP). Nakon konzultacije s neurologom, u obradu je uključena i biopsija stijenke debelog crijeva.

Rezultati:

Bolesnik je kod dolaska imao vaskulitis retine desnog oka te vitritis lijevog oka sa zamućenom stražnjim vitreusom i odignutom stražnjom hijaloidnom membranom. Dolazna vidna oštrina desnog oka je 1,0, a lijevog oka 0,1.

UZ nalaz lijevog oka: gusti opaciteti u obliku mrlja i trakastih formacija u staklovini. FA desnog oka: u ranoj i kasnijoj fazi vidljiva hipofluorescencija u projekciji bjeličastih formacija mrežnice. FA lijevog oka: u ranoj i kasnoj fazi vidljiva hiperfluorescencija u vitreusu koja onemogućava vizualizaciju mrežnice. Octopus LVP: opsežni absolutni i relativni skotomi više lijevo. VEP: oštećenje retinokortikalne kondukcije oba oka. Biopsija stijenke debelog crijeva dokaže se postojanje amiloida u lamini propriji i podsluznici stijenke debelog crijeva.

Zaključak:

U diferencijalnoj dijagnozi očnih bolesti kao što je vitritis, uz prisutne simptome zahvaćenosti drugih organa (GI trakt, srce, polineuropatija),

te pozitivnu obiteljsku anamnezu, treba u obzir uzeti i familijarnu amiloidozu.

English

Title: Vitritis caused by familial amyloidosis

Authors: Karaman K, Znaor Lj, Matas A, Marin Lovric J, Filipovic-Grcic P, Culic V

Institution: University Hospital Center Split, Department of Ophtalmology

Aim: To present the clinical manifestations of a rare ocular signs of familial amyloidosis, which has helped in establishing the final diagnosis.

Patients and methods:

The patient, 47 years old, was admitted for a second time to the Department of Ophthalmology, Split University Hospital due to the decrease of visual acuity of the left eye. Clinical workup during the first hospitalization in 2008 found retinal vasculitis of nonspecific etiology in both eyes. Since 2003 he has had a sensorimotor neuropathy, hypertrophic cardiomyopathy, diarrhea and neurogenic bladder. In 2008 he had a pacemaker defibrillator implanted. The latest clinical workup included echography (UZ), fluorescein angiography (FA), visual field (Octopus LVP), and visual evoked potentials (VEP). After consultation with a neurologist, the patient was advised to do a colon biopsy.

Results:

The patient presented with retinal vasculitis of the right eye and vitritis of the left eye with blurred posterior vitreous and detached posterior hyaloid membrane. Visual acuity was 1.0 on right eye and 0.1 on the left eye.

Echography findings of the left eye: diffuse medium reflexivity/real opacification. FA of the right eye: early and later phase hipofluorescence visible in projection of the retinal white patches. FA left eye: early and late phase hyperfluorescence visible in the mid vitreous, which prevents visualization of the retina. Octopus LVP: absolute and relative skotomata, more prominent on the left. VEP: retinocortical conduction impairment in both eyes. Colon biopsy demonstrated the presence of amyloid in the lamina propria and submucosa of

Conclusion:

In case of vitritis accompanied with other symptoms of other organ involvement (GI tract, heart, polyneuropathy), and a positive family history, the differential diagnosis should comprise familial amyloidosis.

Naslov: Primjena ekstrakta amnijske membrane (AMX) kod perzistirajućeg epitelnog defekta (PED) rožnice

Autori: Rajko Kordić, Emilian Ghinelli, Miro Kalauz, Tomislav Kuzman, Ivan Škegro

Ustanova: Klinika za očne bolesti Medicinskog fakulteta Sveučilišta u Zagrebu, KBC – Zagreb

Cilj: Istražiti djelovanje ekstrakta amnijske membrane (AMX) na cijeljenje defekta epitelja rožnice

Bolesnici i metode:

Liofilizirani ekstrakt amnijske membrane (AMX) u obliku kapi primijenjen je 15x dnevno u obliku kapi u dvoje bolesnika dobi 30 i 40 god. Bolesnici su imali višetjedni perzistirajući epitelnji defekt (PED) rožnice zbog Schwannoma pontocerebellarnog kuta.

Rezultati:

Nakon 7 i 10 dana primjene 15x dnevno kapi AMX, epitelnji defekti su zacijelili.

Zaključak:

Kapi ekstrakta amnijske membrane (AMX) su se pokazale uspješne u ubrzavanju cijeljenja perzistirajućeg epitelnog defekta (PED) rožnice

English

Title: Application of amniotic membrane extract (AMX) for persistent epithelial defect (PED) of the cornea

Authors: Rajko Kordić, Emilian Ghinelli, Miro Kalauz, Tomislav Kuzman, Ivan Škegro

Institution: Klinika za očne bolesti Medicinskog fakulteta Sveučilišta u Zagrebu, KBC - Zagreb

Aim: To explore the healing effect of AMX on PED of the cornea

Patients and methods:

We applied eye drops 15x a day of newly launched preparation of amniotic membrane extract (AMX) in two patients (aged 30 and 40ys) with persistent epithelial defect (PED) because of pontocerebellar Schwannoma.

Results:

After 7 and 10 days of application PED completely healed in both patients.

Conclusion:

Amniotic membrane extract (AMX) showed good healing effect in patients with PED because of pontocerebellar Schwannoma

Naslov: MALIM KORACIMA DO SNIŽENJA INTRAOKULARNOGA TLAKA KOD DJECE

Autori: J. Škunca Herman, M. Zorić Geber, I. Krolo, S. Hudolin

Gonan, B. Doko Mandić, K. Novak Lauš, Z. Mandić

Ustanova: Klinika za očne bolesti, KBC "Sestre milosrdnice"

Cilj: Prikazati ishod operacija glaukoma dječje dobi

Bolesnici i metode:

Retrospektivni prikaz djece kod koje je operiran glaukom između siječnja 2009. i ožujka 2012. godine. Prosječno vrijeme praćenja bilo je 1.5 godina. Analizirano je 11 djece i 16 očiju oboljelih od primarnog kongenitalnog glaukoma i sekundarnog glaukoma nastalog nakon operacije kongenitalne katarakte. Liječenje je smatrano uspješnim u slučaju postoperativnoga očnoga tlaka manjeg ili jednakog 16 mmHg. Prikazane su intraoperativne i postoperativne komplikacije. Iz prikaza su isključena djeca starija od 2005. godine i sekundarni glaukomi koji nisu posljedica operacije kongenitalne katarakte.

Rezultati:

Ovisno o očnom statusu učinjene su 3 trabekulotomije, 2 trabekulektomije, 12 kombiniranih zahvata trabekulotomija s trabekulektomijom, ugrađene su 3 Ahmedove valvule kao i 3 mini shunta. Prosječni očni tlak prije operacije iznosio je $35 +/ - 10$ mmHg. Postoperativni tlak mjerен na zadnjoj kontroli bio je $17 +/ - 4$ mmHg. Kod 10 od 16 očiju postignut je zadovoljavajući postoperativni rezultat. Prosječna operacija po oku iznosio je 1.4. Kod 4 oka zabilježene su ozbiljne komplikacije.

Zaključak:

U većini slučajeva kod djece, trabekulotomija s trabekulektomijom postigla je najbolje rezultate operativnog snižavanja očnoga tlaka i smanjila potrebu za ugradnjom valvula. S obzirom na predstojeću životnu dob neophodno je dugotrajno plansko liječenje.

English

Title: BABY STEPS TO IMPROVE INTRAOCULAR PRESSURE IN CHILDHOOD

Authors: J. Škunca Herman, M. Zorić Geber, I. Krolo, S. Hudolin

Gonan, B. Doko Mandić, K. Novak Lauš, Z. Mandić

Institution: University department of ophthalmology, University clinical hospital "Sestre milosrdnice"

Aim: To investigate the outcome of angle surgery for pediatric glaucoma.

Patients and methods:

Retrospective chart review of consecutive children who had glaucoma surgery between January 2009 and May 2012. A total of 16 eyes of 11 patients met inclusion criteria with a mean follow-up of 1.5 years.

Inclusion criteria included children with primary congenital glaucoma and secondary glaucoma following congenital cataract surgery.

Treatment success was defined as postoperative intraocular pressure of <or=16 mm Hg. The intraoperative and postoperative complication rates were analyzed. Exclusion criteria included children older than 7 years and secondary glaucoma that is not a result of cataract surgery.

Results:

Surgical intervention included 3 trabeculotomies, 2 trabeculectomies, 12 combined trabeculotomies-trabeculectomies, 3 Ahmed Glaucoma Valve implants, 3 express mini glaucoma shunt. Mean IOP before angle surgery was 35 +/- 10 mm Hg. Final postoperative IOP was 17 +/- 4 mmHg. Treatment success was observed in 10 of the 16 eyes, with a mean number of angle procedures of 1.4 per eye. Serious complications were noted in 4 eyes.

Conclusion:

When intraocular surgery is indicated in the IOP lowering in pediatric glaucoma, combined trabeculotomy-trabeculectomy achieves successful results in the majority of eyes and may decrease the need for shunting procedures in childhood glaucoma. Therapeutic long life strategy, play a crucial role in pediatric glaucoma.

Naslov: Dijabetička retinopatija - kirurški načini liječenja

Autori: Damir Katušić, Tomislav Jukić, Nenad Vukojević, Marija Štanfel

Ustanova: Klinika za očne bolesti Medicinskog fakulteta Sveučilišta u Zagrebu i KBC Zagreb

Cilj: Autori prikazuju svoja iskustva kirurškog liječenja pacijenata s dijabetičkom retinopatijom.

Bolesnici i metode:

Video prezentacija nekoliko slučajeva dijabetičke retinopatije tretirane na Zavodu za bolesti i kirurgiju stražnjeg segmenta oka Klinike za očne bolesti KBC Zagreb.

Rezultati:

Postizanje povoljnog anatomskega ishoda u komplikiranih slučajeva proliferativne dijabetičke retinopatije.

Zaključak:

Pravovremena indikacija preduvjet je uspješnog operativnog zahvata.

English

Title: Diabetic retinopathy - surgical strategies

Authors: Damir Katušić, Tomislav Jukić, Nenad Vukojević, Marija Štanfel

Institution: Eye Clinic, Medical School and University Hospital Centre Zagreb

Aim: Authors are showing surgical strategies in treating diabetic retinopathy.

Patients and methods:

Video presentation of few cases of patients with diabetic retinopathy treated at our Clinic.

Results:

Good anatomic result in complicated cases of diabetic retinopathy.

Conclusion:

On-time indication is prerequisite of successful surgical outcome.

Naslov: PILOMATRIXOM - PRIKAZ SLUČAJA

Autori: Bišćan Ana, Kuzmanović Elabjer Biljana, Miletić

Daliborka, Bušić Mladen, Bosnar Damir

Ustanova: Klinika za očne bolesti, Klinička bolnica \"Sveti Duh\", Zagreb, Medicinski fakultet Osijek, Sveučilište Josipa Jurja Strossmayera u Osijeku

Cilj: Prikazati slučaj pilomatrixoma periokularnog područja.

Bolesnici i metode:

Retrospektivna analiza podataka jednog pacijenta.

Rezultati:

Pacijentica, u dobi od 10 godina, dolazi zbog bezbolne, spororastuće tvorbe smještene ispod desne obrve. Kliničkim pregledom se nađe ovalna, dobro ograničena, plavičasta, pomicna potkožna tvorba, veličine oko 7x5 mm, s urednim izgledom kože. Učinjena je kompletna kirurška eksicizija tvorbe. Histopatološka analiza je potvrdila kliničku dijagnozu pilomatrixoma.

Zaključak:

Pilomatriksom je rijedak, benigni kožni tumor koji se najčešće javlja kod djece i u mlađoj odrasloj dobi, a potječe iz pluripotentnih prekursora matičnih stanica dlaka. Najčešće se javlja u području glave i vrata. U periokularnom području, obično se javlja uz vjeđe i obrve. Zbog moguće maligne transformacije preporuča se kompletna kirurška eksicizija.

English

Title: PILOMATRIXOMA – CASE REPORT

Authors: Bišćan Ana, Kuzmanović Elabjer Biljana, Miletić Daliborka, Bušić Mladen, Bosnar Damir

Institution: University Eye Clinic, University Hospital "Sveti Duh", Zagreb, School of Medicine Osijek, University of Josip Juraj Strossmayer Osijek

Aim: To report a case of pilomatrixoma tumor in periocular area.

Patients and methods:

Retrospective analysis of one patient medical history.

Results:

A 10-year-old female patient presented with painless, slow growing tumor below the right eyebrow. On examination oval, well circumscribed, bluish, subcutaneous mass, measuring approximately 7x5 mm, was visible. The lesion was mobile with intact overlying skin. After total surgical excision, histopathological examination confirmed the diagnosis of pilomatrixoma.

Conclusion:

Pilomatrixoma is a rare, benign, cutaneous tumor of children and young adults originating from pluripotential precursors of hair matrix cells. It is most common in the head and neck region. In the periocular area usually arises from the lids and eyebrows. The treatment is surgical excision with clear margins since malignant transformation has been described.

**Naslov: PROMJENE KERATOMETRIJSKIH VRIJEDNOSTI I
REFRAKCIJE KOD KERATOKONUSA TIJEKOM TRUDNOĆE**

Autori: Senad Ramić, Tatjana Bradetić

Ustanova: Klinika za očne bolesti, Klinička bolnica "Sveti Duh", Zagreb, Medicinski fakultet Osijek, Sveučilište Josipa Jurja Strossmayera u Osijeku

Cilj: Prikazati promjene keratometrijskih vrijednosti i refraktivne greške u 4 pacijentice s keratokonusom tijekom i nakon trudnoće.

Bolesnici i metode:

U ovu retrospektivnu studiju uključeno je 7 očiju od četiri trudne pacijentice s miopijom i keratokonusom, koji je dijagnosticiran najmanje 6 mjeseci prije nastanka trudnoće. Srednja dob pacijentica u trudnoći bila je 27.7 godine (18-26-33-34). Keratometrijske vrijednosti i refraktivne greške praćene su 6 do 12 mjeseci prije trudnoće, te 6 do 12 mjeseci nakon poroda.

Rezultati:

Kod većine bolesnica zabilježeno je blago povećanje refraktivne greške, ali bez signifikantne promjene keratometrijskih vrijednosti tijekom i nakon trudnoće.

Zaključak:

Hormonalne promjene tijekom trudnoće nisu dovele do progresije keratokonusa tijekom niti nakon trudnoće. Pregledom literature, objavljen je tek manji broj retrospektivnih studija i prikaza slučajeva koji dokumentiraju promjene kod keratokonusa tijekom trudnoće. Novi dokazi potrebni su kako bi se definirao standard praćenja ove skupine bolesnica.

English

Title: CHANGES OF KEROMETRY AND REFRACTIONS IN
KERATOCONUS DURING PREGNANCY

Authors: Senad Ramić, Tatjana Bradetić

Institution: University Eye Clinic, University Hospital "Sveti Duh", Zagreb ,School of Medicine Osijek, University of Josip Juraj Strossmayer Osijek

Aim: To evaluate changes of keratometry values and refractions in four keratoconus patients during and after pregnancy.

Patients and methods:

This retrospective study included 7 eyes of four patients with myopia and keratoconus diagnosed at least 6 months before pregnancy. The mean age of patient was 27.7 years (18-26-33-34). Keratometry and refractive values were documented 6 to 12 months before and 6 to 12 months after pregnancy.

Results:

Moderately increase of refractive error with no significant changes of keratometry values were documented during and after pregnancy.

Conclusion:

Hormonal changes during pregnancy did not induce progression of keratoconus during pregnancy and in period after. To the best of our knowledge there are a few retrospective studies and case series that evidence changes of keratoconus in pregnancy. Further evidence is needed in order to set new standards in the monitoring of keratoconus in pregnancy.

**Naslov: LATERAL CANTHAL SLING: OPERATIVNO LIJEČENJE
PARALITIČKOG EKTROPIJA**

**Autori: Mirna Belovari Višnjić, Lana Dujmović, Renata Ivezović,
Ognjen Zrinščak, Zdravko Mandić**

**Ustanova: Klinika za očne bolesti, Klinički bolnički centar
"Sestre milosrdnice", Zagreb, Hrvatska**

Cilj: Cilj ove prezentacije je prikazati naš pristup kirurškom liječenju paralitičkog ektropija i učinkovitost u zbrinjavanju komplikacija nastalih zbog lagoftalmosa.

Bolesnici i metode:

Tri slučaja paralitičkog ektropija su podvrgnuta operativnom liječenju nakon neuspješne konzervativne terapije ektropija nastalog zbog neurokirurškog tretmana intrakranijskog tumora. Biomikroskopskim pregledom se utvrdio ektropij donje vjeđe, lagoftalmus, hiperemija spojnice te fluorescein pozitivni keratitis e lagophthalmo ili fluorescein negativna band keratopatija. U svih bolesnika je primijenjena operativna tehnika "lateral canthal sling" radi ispravljanja paralitičkog ektropija i podizanja lateralnog kantusa. Bolesnici su dolazili na kontrolne preglede tjedan dana, mjesec dana i tri mjeseca nakon operativnog zahvata.

Rezultati:

U svih bolesnika je postoperativno postignuta dobra pokrivenost rožnice uz poboljšani kozmetski efekt. Vidna oština na operiranom oku bila je znatno bolja nakon 3 mjeseca praćenja.

Zaključak:

Lateral canthal sling je uspješna operativna metoda u liječenju paralitičkog ektropija. Omogućuje dobru zaštitu rožnice, najbolji funkcionalni oporavak uz zadovoljavajući kozmetski efekt. Uloga oftalmologa je izrazito važna u početnoj procjeni i dugoročnom pristupu bolesniku s parezom n.facialis.

English

Title: LATERAL CANTHAL SLING: SURGICAL TREATMENT OF

PARALYTIC ECTROPION

Authors: Mirna Belovari Višnjić, Lana Dujmović, Renata Ivezković, Ognjen Zrinščak, Zdravko Mandić

Institution: University Eye Clinic, University Hospital Center, „ Sisters of Charity“, Zagreb, Croatia

Aim: Aim of this presentation was to show our approach to the surgical treatment of paralytic ectropion and effectiveness in the management of complications due to lagophthalmos.

Patients and methods:

Three cases of paralytic ectropion that occurred after neurosurgical treatment of intracranial tumor were involved in oculoplastic surgical treatment following unsuccessful conservative therapy. Slit-lamp examination showed lower eyelid ectropion, lagophthalmos and conjunctival hyperemia with fluorescein positive keratitis e lagophthalmo or fluorescein negative band keratopathy. In all patients lateral canthal sling procedure was performed to correct paralytic ectropion and raise the lateral canthus. Patients showed up for postoperative examination in 1 week, 1 and 3 month.

Results:

All patients reached good corneal cover post-operatively and were cosmetically improved. After 3 months follow up visual acuity of the treated eye was significantly better.

Conclusion:

Lateral canthal sling procedure is successful surgical method in treatment of paralytic ectropion. It provides good corneal protection with the best functional and cosmetic effect. The ophthalmologist may play an important role in the initial evaluation and the long-term management of patients with facial nerve palsy.

Naslov: Uloga dijabetične retinopatije kod nastanka sljepoće i slabovidnosti u Splitsko-Dalmatinskoj županiji od 2000. do 2010. godine

Autori: Davor Galetović, Ivana Olujić, Milan Ivanišević, Kajo Bućan, Dobrila Karlica, Ljubo Znaor, Mladen Lešin

Ustanova: KBC split

Cilj: Cilj ove epidemiolške studije je utvrditi broj slijepih u Splitsko-Dalmatinskoj Županiji u periodu od 2000 do 2010 godine. Ujedno smo evaluirali ulogu dijabetičke retinopatije u nastanku sljepoće ispitanika.
Bolesnici i metode:

Retrospektivno smo analizirali ispitanike Udruge slijepih Splitsko-Dalmatinske Županije evidentiranih u periodu od 2000 do 2010 godine.

Rezultati:

Vodeći uzrok sljepoće je dijabetička retinopatija, poglavito proliferacijska forma. Najveća incidencije javlja se u strarijoj dobi, ali naša studija pokazuje da je dijabetička retinopatija i dalje vodeći uzrok sljepoće u radno sposobnoj populaciji.

Zaključak:

Rano prepoznavanje visoko rizičnih bolesnika ključni je čimbenik u prevenciji, a pravovremenom deketezijom oftalmoskopskih promjena u mogućnosti smo efikasno intervenirati. Dobre epidemiološke studije značajna su podrška javno zdravstvenom sustavu.

English

Title: The role of diabetic retinopathy in blindness and por sight in Split-Dalmatia County from 2000. to 2010.

Authors: Davor Galetović, Ivana Olujić, Milan Ivanišević, Kajo Bućan, Dobrila Karlica, Ljubo Znaor, Mladen Lešin

Institution: KBC Split

Aim: The aim of epidemiological study was to determine the number of blind in the Split-Dalmatia County in the period from 2000. to 2010.

We have also evaluated the role of diabetic retinopathy in the onset of

blind subjects

Patients and methods:

In retrospect we analyzed the subjects of the Association of Blind of Split-Dalmatian County recorded in the period of 2000. to 2010.

Results:

In the Split-Dalmatia County in the last 10 years were 160 registered blind people, 8.4 incidence per 100,000 per year. The leading cause of blindness is diabetic retinopathy, especially its proliferative form. The highest incidence occurs in older age, but our study shows that diabetic retinopathy remains a leading cause of blindness in the working population.

Conclusion:

Early identification of high risk patients is a key factor in the prevention and timely detection of ophthalmoscopic changes we are able to effectively intervene. Good epidemiological studies are important public health system support.

**Naslov: JUVENILNI GLAUKOM OTVORENOG KUTA: PRIKAZ
OBITELJI KROZ ČETIRI GENERACIJE**

**Autori: Ž. Kaurić, J. Škunca Herman, B. Doko Mandić, M. Zorić
Geber, Z. Mandić**

Ustanova: Klinika za očne bolesti, KBC "Sestre milosrdnice"

Cilj: Prikaz slučaja juvenilnog glaukoma otvorenog kuta kod hrvatske obitelji kroz četiri generacije

Bolesnici i metode:

Juvenilni glaukom otvorenog kuta je autosomno dominantna bolest koja nastaje u ranoj dobi, a karakterizira ju povišeni očni tlak

Kliničkim pregledom sedmogodišnje djevojčice izmjeren je povišen očni tlak s glaukomskom optikoneuropatijom i obostranim oštećenjem vidnog polja. Juvenilni glaukom otvorenog kuta dijagnosticiran je na temelju kliničkih ispitivanja i obiteljske anamneze. Kod četiri člana obitelji u prethodne tri generacije pronađen je jednak i ili lošiji klinički nalaz. Najstariji član obitelji i njegova kćer (baka djevojčice) oslijepili su na oba oka.

Rezultati:

Otac djevojčice i ujak operirani su u dobi od 9 god. Operacija glaukoma bila je potrebna i kod djevojčice. Na zadnjem kontrolnom pregledu intraokularni tlakovi bili su uredni bez medikamentozne terapije.

Zaključak:

Juvenilni glaukom otvorenog kuta ponekad ostane neprepoznat. Potreban je pregled svih članova obitelji s pozitivnom glaukomskom anamnezom.

English

Title: JUVENILE OPEN ANGLE GLAUCOMA (JOAG): FOUR-GENERATION FAMILY REPORT

Authors: Ž. Kaurić, J. Škunca Herman, B. Doko Mandić, M. Zorić
Geber, Z. Mandić

Institution: University department of ophthalmology, University clinical hospital \"Sestre milosrdnice\"

Aim: We report on a four-generation Croatian family with juvenile open angle glaucoma

Patients and methods:

Juvenile-onset open-angle glaucoma (JOAG) is an autosomal dominant disease characterized by severely elevated intraocular pressure that occurs at an early age.

A 7 year old girl presented with an elevated intraocular pressure (IOP), glaucomatous optic nerve head atrophy and bilateral advanced visual field defects. Juvenile open-angle glaucoma (JOAG) was diagnosed based on the clinical examination and family history. Subsequently 4 family members in 3 previous generations have been identified with the same or even worse clinical appearance. The eldest member and his daughter (girls grandmother) were blind in both eyes.

Results:

Girls father and her uncle underwent glaucoma filtration surgery at the age of 9, as well as in case of our girl. Up to date, IOP control is sufficient without medical treatment.

Conclusion:

Juvenile-onset open-angle glaucoma sometimes remains undiagnosed. Systematic screening should be performed during childhood in positive family history of glaucoma.

**Naslov: Komparativna studija kirugije primarnog pterigija:
utjecaj intraoperativne adjuvantne terapije 20% -
etanolom na stopu rekurencije - dugotrajni rezultati**

**Autori: Mirna Belovari Višnjić, Renata Ivezković, Ognjen
Zrinčak, Freja Barišić, Iva Krolo, Zdravko Mandić**

**Ustanova: Klinika za očne bolesti, Klinički bolnički centar
"Sestre milosrdnice", Zagreb, Hrvatska**

Cilj: Cilj ove studije je prikazati naša klinička iskustva te procijeniti učinkovitost i sigurnost primjene etanola tijekom operacije pterigija u prevenciji rekurencije, što predstavlja osnovnu zabrinutost oftalmologa nakon uklanjanja pterigija.

Bolesnici i metode:

U komparativnu studiju je bilo uključeno 146 bolesnika s primarnim pterigijem koji je prerastao limbus rožnice za 2-4 mm. Svi pterigiji su bili kirurški ekstirpirani uz primjenu rotacijskog režnja spojnica za 90 stupnjeva. U 82 bolesnika (ECR grupa) je apliciran 20%-etanol tijekom 30 sekundi na spojničnu i rožničnu površinu pterigija prije same ekstirpacije. Šezdeset četiri bolesnika (CR grupa) su operirana istom kirurškom metodom bez upotrebe etanola. Izlazna mjerena su uključivala stopu rekurencije, vrijeme rekurencije, komplikacije i bolesnikovo subjektivno zadovoljstvo. Svi operirani su praćeni duže od godinu dana.

Rezultati:

Pterigium je rekurirao u 6 od 82 (8,3%) oka iz ECR grupe (kombinacija primjene etanola i rotacijskog režnja spojnica) te u 9 od 64 (14%) očiju podvrgnutih samo operativnom zahvatu bez primjene etanola. Vrijeme rekurencije je bilo duže u ECR grupi, nego u CR grupi.

Zaključak:

Intraoperativna primjena 20%-etanola u kombinaciji s kirurškim odstranjnjem pterigija i rotacijskim režnjem spojnica je učinkovita u prevenciji rekurencija. Kirurški postupak je siguran i tehnički nezahtijevan uz manje komplikacija u odnosu na dosad poznate metode liječenja. Metoda s najmanje komplikacijama te izrazito nisku stopu rekurencije (manje od 5%) nije još ustanovljena, no ECR metoda je postigla dosada najbliže rezultate.

English

Title: Comparative study of primary pterygium surgery: impact of intraoperative

Authors: Mirna Belovari Višnjić, Renata Ivezković, Ognjen Zrinšćak, Freja Barišić, Iva Krolo, Zdravko Mandić

Institution: University Eye Clinic, University Hospital Center „ Sisters of Charity“, Zagreb, Croatia

Aim: Aim of this study is to show our clinical experiences and evaluate effectiveness and safety of ethanol treatment during pterygium surgery in preventing the recurrence of pterygia, which is the main concern for ophthalmic surgeons after the removal of pterygium.

Patients and methods:

A comparative study included 146 patients with primary pterygia whose preoperative growth over cornea was between 2 and 4 mm. All pterygia were operated by excision and 90 degree conjunctival rotation autograft. In 82 patient cases (ECR group) 20%-ethanol was applied for 30 seconds to the pterygial and its adjacent corneal surfaces before pterygium excision. Sixty four patients (CR group) were operated using surgical procedure without ethanol adjuvant therapy. Outcome measures included rate of recurrence, time of recurrence, complications and patients' subjective satisfaction. The follow up period for all analyzed eyes was longer than 1 year.

Results:

Pterygium recurred in 6 of 82 (8, 3%) eyes in ethanol with conjunctival rotation autograft (ECR) group and in 9 of 64 (14%) eyes that underwent only surgical excision with conjunctival rotation autograft. Time of recurrence was longer in ECR group than in CR group.

Conclusion:

Ethanol adjuvant therapy combined with surgical excision and conjunctival rotation autograft in pterygium surgery is effective in prevention of the pterygia recurrence. This surgical treatment is safe and not technically demanding with fewer complications compared to the previously known methods. Method with minimal complications and very low recurrence rate (less than 5%) has not yet been identified; ECR method has reached the closest results so far.

Naslov: Retina i starenje

Autori: Milan Ivanišević, Davor Galetović, Kajo Bućan, Darko Batistić

Ustanova: Klinika za očne bolesti, Klinički bolnički centar Split

Cilj: Cilj rada je prikazati kakve se promjene događaju na mrežnici u uznapredovaloj dobi.

Bolesnici i metode:

Korišteni su podatci iz raznih oftalmoloških studija.

Rezultati:

U starijoj dobi događaju se promjene na pripadajućoj žilnici, retinalnim krvnim žilama, retini i to na retinalnom pigmentnom epitelu, ganglijskim stanicama, neuroepitelnim stanicama.

Zaključak:

Kako sa starenjem propadaju svi dijelovi oka tako i sama retina te joj se smanjuju mnoge njezine funkcije što se odražava na kvalitetu života.

English

Title: Retina and aging

Authors: Milan Ivanišević, Davor Galetović, Kajo Bućan, Darko Batistić

Institution: Department of Ophthalmology, University Hospital Centre Split

Aim: The aim of this work is to show the changes in the retina in advancing age.

Patients and methods:

The data from various ophthalmological studies were used.

Results:

The changes in adjacent choroid, retinal blood vessels and retina are occurred. Retinal pigment epithelium, ganglion cells and neuroepithelial cells are particularly deteriorated.

Conclusion:

As all parts of the eye deteriorate with advancing age, aging of the retina also occurs. Many of the retinal functions decrease which reflects on the quality of life.

**Naslov: USPOREDBA STRUKTURNIH I FUNKCIJSKIH PROMJENA
U BOLESNIKA OBOLJELIH OD GLAUKOMA
KORIŠTENJEM POLAR GRAFA I OPTIČKE KOHERENTNE
TOMOGRAFIJE**

**Autori: Freja Barišić, Katia Novak-Lauš, Tatjana Cvetetić
Žužul, Marin Belak, Iva Krolo, Mirna Belovari Višnjić, Zdravko
Mandic**

**Ustanova: Klinički Bolnički Centar " Sestre Milosrdnice",
Zagreb, Hrvatska**

Cilj: Usporediti funkcionalne promjene na Polar Grafu vidnog polja Octopus 900 perimetrije u procjeni strukturalnih promjena retinalnog sloja živčanih niti kod bolesnika oboljelih od glaukoma.

Bolesnici i metode:

Kod 50 bolesnika sa glaukomom otvorenog kuta snimili smo vidno polje korištenjem G2 programa Octopus 900 perimetra. Također je Optičkom koherentnom tomografijom (OCT) snimljena debljina retinalnog sloja živčanih niti. Polar graf je podjeljen na 12 dijelova koji odgovaraju snimkama RNFL-a dobivenih OCT-om. Usporedili smo sektorne vrijednosti u decibelima dobivene analizom polar grafa s vrijednostima debljine retinalnog sloja živčanih niti dobivenih OCT-om.

Rezultati:

Patološke vrijednosti dobivene analizom Polar grafa korelirale su sa nalazom OCT-a u 72% bolesnika s ranim glaukom, 65% bolesnika s umjerenim i u 60% bolesnika s uznapredovalim stadijem glaukomske bolesti.

Zaključak:

Polar graf je vrijedno sredstvo za procjenu povezanosti između strukturalnih promjena vidnog živca i funkcijskih promjena u vidnom polju kod bolesnika s glaukom.

English

Title: CORRELATION OF THE POLAR GRAPH AND OPTICAL COHERENCE TOMOGRAPHY RNFL ANALYSES IN THE EVALUATION OF GLAUCOMA

PATIENTS

Authors: Freja Barišić, Katia Novak-Lauš, Tatjana Cvetetić Žužul, Marin Belak, Iva Krolo, Mirna Belovari Višnjić, Zdravko Mandic
Institution: Department of Ophthalmology, Clinical Hospital Centre „Sisters of Charity“, Zagreb, Croatia

Aim: In this study we wanted to assess the effectiveness of the Polar Graph, new Octopus Field Analysis software in evaluation of the nerve damage in glaucoma patients.

Patients and methods:

70 eyes of 50 subjects with open angle glaucoma (OAG) were evaluated using G2 program of the Octopus 900. Optical coherence tomography (OCT) imaging of peripapillary retina and macular area were performed using Cirrus HD OCT. We divided the polar graph into 12 sections corresponding to the retinal nerve fiber layer (RNFL) thickness measured using OCT. We compared each Polar Graph sector with 12 OCT clock-hour sectors.

Results:

The abnormal areas by the polar diagram and the 12 clock-hour sectors of RNFL correlated in 72%, 65%, and 60% of patients with early, moderate, and advanced stage of OAG, respectively.

Conclusion:

The Polar is a valuable tool for evaluating the correlation between the structural changes of the optic disc and the functional changes of the visual field in patients with OAG.

Naslov: retinalni kapilarni hemangiom; prikaz slučaja

Autori: M. Vojčić, Z. Vatavuk, G. Benčić, J. Brajković

Ustanova: KBC Sestre milosrdnice

Cilj: praćenje pacijenta sa retinalnim kapilarnim hemangiomom tijekom godinu dana uz pomoć širokokutne fundus kamere

Bolesnici i metode:

prikaz slučaja

Rezultati:

tijekom jednogodišnjeg praćenja uz jednokratnu aplikaciju anti-VEGF terapije vidna oštrina je ostala stabilna

Zaključak:

Širokokutna fundus kamera je vrlo korisno sredstvo praćenja i bolesnika sa retinalnim kapilarnim hemangiomom

English

Title: retinal capillary haemangioma; case report

Authors: M. Vojcic, Z. Vatavuk, G. Bencic, J. Brajkovic

Institution: Clinical Hospital Sisters of Mercy

Aim: one year follow up of a patient with retinal capillary haemangioma using wide field fundus camera

Patients and methods:

case report

Results:

during one year follow up and one application of anti-VEGF therapy visual acuity remained stable

Conclusion:

Wide field fundus camera is very usefull tool in the follow up of patients with retinal capillary haemangioma

Naslov: Reproduktibilnost mjerena debljine retinalnog nervnog sloja Spectral-domain optičkom koherentnom tomografijom kod bolesnika s endotamponadom silikonskim uljem

Autori: Iva Krolo, Mia Zorić-Geber, Goran Benčić, Zoran Vatavuk, Renata Iveković

Ustanova: Klinički bolnički centar „Sestre milosrdnice“, Klinika za očne bolesti, Zagreb, Hrvatska

Cilj: Procijeniti reproduktibilnost mjerena debljine retinalnog nervnog sloja (RNFL) u očiju s endotamponadom silikonskim uljem, korištenjem Spectral-domain optičke koherentne tomografije (OCT) (Cirrus HD-OCT; Carl Zeiss Meditec, Inc., Dublin, CA).

Bolesnici i metode:

Studija uključuje 60 bolesnika s privremenom tamponadom silikonskim uljem, koji su podvrgnuti pars plana vitrektomiji zbog regmatogene ablacijske mrežnice i proliferativne retinopatije. Svi bolesnici prethodno su prošli cjelokupni oftalmološki pregled. Debljina RNFL mjerena je Cirrus Spectral-domain uređajem, High definition OCT (Cube 200 x 200 program) u očiju ispunjenih silikonskim uljem 7., 30., 90. i 180. postoperativnog dana. Drugo oko svakog ispitanog bolesnika služilo je kao kontrola. Reptoduktibilnost mjerena debljine RNFL određena je korištenjem koeficijenta reproduktibilnosti iz tri ponovljene snimke nastale u jednakim uvjetima.

Rezultati:

Ukupno je 57 bolesnika provelo sve kontrole tijekom praćenja i njihovi su podaci statistički obrađeni. Standardna devijacija mjerena između pojedinih posjeta iznosila je od 16,39 do 23,35 µm u grupi očiju s endotamponadom silikonskim uljem. U kontrolnoj skupini, standardna devijacija varirala je od 10,79 do 11,67 µm. Koeficijent reproduktibilnosti na svakoj kontroli iznosio je od 1,49 do 2,32 u očiju s tamponadom.

Zaključak:

Cirrus OCT je pokazao dobru reproduktibilnost u mjerenu debljine RNFL u bolesnika s endotamponadom silikonskim uljem. Rezultati ove

studije ukazuju na pouzdanost dijagnostičkih mogućnosti Cirrus OCT-a u mjerenu debljine RNFL u očiju sa silikonskim uljem, nakon prethodne vitrektomije.

English

Title: Reproducibility of retinal nerve fiber layer thickness measurements using Spectral domain Optical coherence tomography in silicone oil-filled eyes

Authors: Iva Krolo, Mia Zorić-Geber, Goran Benčić, Zoran Vatavuk, Renata Ivezković

Institution: University Hospital Center „Sestre milosrdnice“, University Department of Ophthalmology, Zagreb, Croatia

Aim: To evaluate the reproducibility of the retinal nerve fiber layer (RNFL) thickness measurements in silicone oil-filled eyes by using spectral domain optical coherence tomography (OCT) device (Cirrus HD-OCT; Carl Zeiss Meditec, Inc., Dublin, CA).

Patients and methods:

The study included 60 patients with a temporary silicone oil tamponade who were surgically treated with pars plana vitrectomy for rhegmatogenous retinal detachment and proliferative vitreoretinopathy. All patients underwent a full ophthalmic examination. Thickness of RNFL was measured with a Cirrus Spectral-domain device, High definition OCT (Cube 200 x 200) at the silicone oil-filled eyes at 7, 30, 90 and 180 day after surgery. The fellow eye of each study patient served as a control. Reproducibility of RNFL thickness measurements was determined using the coefficient of reproducibility calculated from the three repeated scans under identical conditions.

Results:

A total of 57 patients completed all follow up visits and were statistically analyzed. Standard deviation of measurements between visits ranged from 16,39 to 23,35 µm in silicone oil-filled eyes. In control group, standard deviation of measurements ranged from 10,79 to 11,67 µm. The coefficient of reproducibility at each visit ranged from 1,49 to 2,32 in silicone oil-filled eyes.

Conclusion:

Cirrus OCT showed good reproducibility for measurement of the retinal nerve fiber layer thickness in patients with silicone oil-filled eyes.

Results of this study implicate the reliability of Cirrus OCT diagnostic performance in RNFL thickness measurements through the silicone oil

in vitrectomized eyes.

Naslov: Intraoperativni sindrom mlohave šarenice povezan sa sistemskim unosom alfa-1 antagonistisa

**Autori: Iva Krolo, Ivanka Petric Vicković, Valentina Lacmanović Lončar, Freja Barišić, Mirna Belovari Višnjić, Zdravko Mandić
Ustanova: Klinički bolnički centar „Sestre milosrdnice“, Klinika za očne bolesti, Zagreb, Hrvatska**

Cilj: Prikazati slučaj intraoperativnog sindroma mlohave šarenice tijekom kombiniranog zahvata katarakte i glaukoma, a kao posljedice korištenja sistemskog alfa-1 antagonista uslijed benigne hipertrofije prostate.

Bolesnici i metode:

Slučaj 71-godišnjeg muškarca na terapiji sistemskim alfa-1 blokatorom u sklopu liječenja benigne hipertrofije prostate, a koji se javlja u našu ustanovu radi fakotrabekulektomije s ugradnjom intraokularne leće zbog primarnog glaukoma otvorenog kuta i senilne katarakte.

Intraoperativno dolazi do razvoja slike sindroma mlohave šarenice, uključujući undulaciju i treperenje šarenice uz sužavanje zjenice.

Rezultati:

Uslijed intraoperativnog sužavanja zjenice usprkos standardnih procedura za spriječavanje istog, kirurg pristupa upotrebi Malyuginovog prstena za retrakciju šarenice, osiguravajući uspješno dovršavanje operativnog zahvata i postizanje dobrih postoperativnih rezultata.

Zaključak:

Oftalmolozi, kao i liječnici koji propisuju sistemsku terapiju alfa-1 antagonistima, moraju biti svjesni moguće komplikacije u smislu intraoperativnog sindroma mlohave šarenice u sklopu operacije katarakte.

English

Title: Intraoperative floppy iris syndrome associated with systemic

alpha-1 blocker

Authors: Iva Krolo, Ivanka Petric Vicković, Valentina Lacmanović

Lončar, Freja Barišić, Mirna Belovari Višnjić, Zdravko Mandić

Institution: University Hospital Center „Sestre milosrdnice“, University Department of Ophthalmology, Zagreb, Croatia

Aim: To report a case of an intraoperative floppy-iris syndrome during a combined cataract and glaucoma procedure as a result of using systemic alpha-1 blocker for benign prostate hypertrophy.

Patients and methods:

A case of 71 year-old man who had been using systemic alpha-1 antagonist for benign prostate hypertrophy over a period of few years, that came to us for phacotrabeculectomy and intraocular lens insertion procedure due to primary open angle glaucoma and senile cataract. Intraoperatively he showed features of floppy-iris syndrome including undulation and billowing of the iris as well as pupil constriction.

Results:

Due to intraoperative pupil constriction despite standard procedures to prevent it, the surgeon decided to use Malyugin ring for iris retraction, that enabled safe completion of the surgery and good postoperative results.

Conclusion:

Ophthalmologists, as well as physicians prescribing systemic alpha-1 blockers, should be aware of this possible association with intraoperative floppy-iris syndrome when performing cataract surgery.

Naslov: Preoperacijski status primarne ablacija retine

Autori: Batistić D, Ivanišević M, Galetović D, Marin J.

Ustanova: Klinika za očne bolesti, KBC Split

Cilj: Utvrditi preoperacijski status primarnih ablacija retine.

Bolesnici i metode:

Studija je retrospektivna i analizirali su se bolesnici sa netraumatskom fakičnom regmatogenom ablacijom retine koji su operirani na Klinici za očne bolesti KBC Split tijekom 5 godina , tj. 2007. do 2011. god.

Rezultati:

Ispitivalo se stanje na retini, prisutnost hemoftalmusa, stanje vidne oštchine, intraokularni tlak, pojава prednjeg uveitisa.

Zaključak:

Preoperacijski status može upućivati na izbor operacijske metode kojom će se ablacija zbrinuti te prognozu bolesti, nekad može pomoći u dijagnostici, ali može i prikriti samu bolest.

English

Title: Preoperative status of primary retinal detachment

Authors: Batistić D, Ivanišević M, Galetović D, Marin J.

Institution: Department of Ophthalmology, University Hospital Centre Split.

Aim: To determine the preoperative status of primary retinal detachments.

Patients and methods:

The study was retrospective and patients with nontraumatic phakic rhegmatogenous retinal detachments treated at Department of Ophthalmology, University Hospital Centre Split during five years, from 2007. until 2011. were analyzed.

Results:

We were examining the condition of the retina, presence of vitreal

hemorrhage, state of visual acuity, intraocular pressure and presence of anterior uveitis.

Conclusion:

Preoperative status can make the choice of operating methods which will be dispose of ablation and prognosis of disease, can sometimes help in diagnosis, but may mask the disease itself.

Naslov: PROBIR AMBLIOPIJE U SVIJETU

Autori: Daliborka Miletić, Mladen Bušić, Mirjana Bjeloš

Rončević, Biljana Kuzmanović Elabjer, Damir Bosnar, Ranka Motušić

Ustanova: Klinika za očne bolesti, Klinička bolnica „Sveti Duh“, Zagreb

Cilj: prezentirati pregled postojećih programa za probir ambliopije u svijetu

Bolesnici i metode:

sistematski pregled literature

Rezultati:

U svijetu postoji velika raznolikost glede programa za ispitivanje vida kod djece predškolske dobi. U skandinavskim zemljama i Izraelu takvi su programi poprimili nacionalne razmjere. Uvođenjem skrininga u Švedskoj prevalencija ambliopije je smanjena s 2.0% na 0.2%, a u Izraelu s 2.6 % na 1%. Međutim, druge zemlje poput SAD, Kanade i Velike Britanije nemaju standardizirane programe provjere vida predškolske djece.

Razlike u preporukama temelje se na značajkama kao što su: optimalna dob testiranja djeteta, specifični testovi za probir, osoblje koje će provoditi programe kao i sam protokol testiranja. Dvije osnovne vrste testova koji se upotrebljavaju su testovi za ispitivanje centralne vidne oštchine (HOTV, E tablice, Lea simboli) i testovi za ispitivanje stereopsije (Random Dot E test, Lang I i II, Titmus test). Također, u SAD-u je sve rasprostranjenija „photoscreening“ tehnologija. Testiranje izvode medicinske sestre (npr. u Kanadi, Švedskoj, SAD-u), ortoptisti (u Velikoj Britaniji, Njemačkoj) ili čak osposobljeno nemedicinsko osoblje.

Zaključak:

Iako studije iz skandinavskih zemalja govore u prilog smanjenja prevalencije ambliopije nakon skrininga vida predškolske djece, vrijednost takvih programa, kao i optimalni protokol njihovog

izvođenja i dalje ostaju kontroverzni. Nedostatak podataka iz randomiziranih kontroliranih ispitivanja otežava analizu utjecaja postojećih programa skrininga vida na učestalost ambliopije.

English

Title: AMBLYOPIA SCREENING PROGRAMS ACROSS THE WORLD

Authors: Daliborka Miletić, Mladen Bušić, Mirjana Bjeloš Rončević, Biljana Kuzmanović Elabjer, Damir Bosnar, Ranka Motušić

Institution: University Eye Clinic, University Hospital „Sveti Duh“, Zagreb

Aim: to present a review of preschool vision screening programs across the world

Patients and methods:

systematic review of the literature

Results:

There is an enormous variability in preschool vision screening practice across the world. In Scandinavian countries and Israel, these programmes have been well established. Following screening programs in Sweden the prevalence of amblyopia in schoolage children was found to be reduced from 2% to 0.2% and in Israel from 2.6% to 1%. However, other countries such as USA, Canada or UK have no standardized preschool vision screening programmes.

The discrepancies in vision screening protocols are based on features such as: the optimal age range to target; specific tests to use, type of personnel to employ for screening and testing protocols.

The major categories of tests for screening protocols are those for visual acuity (HOTV, E charts, Lea symbols) and stereopsis (Random Dot E test, Lang I, II, Titmus test). Also, photoscreening technology is in use in the USA. These tests can be applied by nurses (in Canada, Sweden, USA), orthoptists (in UK, Germany) or even trained lay examiners.

Conclusion:

Although studies from Scandinavian countries suggest that preschool vision screening is associated with a reduced prevalence rate of amblyopia, the value of such programs and the optimum protocol for administering them remain controversial. The lack of data from randomized controlled trials makes it difficult to analyze the impact of existing screening programs on the prevalence of amblyopia.

**Naslov: EKSPRESIJA IL-1 ALFA I TNF ALFA IZ STANICA
ROŽNICE PACIJENATA OBOLJELIH OD BULOZNE KERATOPATIJE**
**Autori: Renata Gržetić-Lenac, Maja Merlak, Siniša Kalanj,
Tamara Smrkinić, Marijana Bilen Babić, Vedran Markušić**
Ustanova: KBC Rijeka, Klinika za oftalmologiju

Cilj: Cilj rada je istražiti koncentracije inflamatornih citokina IL-1 ALFA i TNF ALFA iz stanica rožnice oboljelih od bulozne keratopatije, kao i koncentracije anti-inflamatornih citokina izlučenih iz amnijeske membrane, te tako objasniti korisno djelovanje amnijske membrane u liječenju bolesnika oboljelih od bulozne keratopatije.

Bolesnici i metode:

U studiju je uključeno 17 pacijenata sa buloznom keratopatijom poslije operacije katarakte sa implantacijom intraokularne leće. Kod svih pacijenata učinjena je transplantacija amnijske membrane.

Rezultati:

Stanice rožnice pacijenata sa buloznom keratopatijom izlučile su $3,91 \pm 3,09$ pg/ml IL-1, te $44,46 \pm 16,8$ pg/ml TNF. Razine oba ispitivana citokina bile su značajno više u odnosu na kontrolnu skupinu. Amnijska membrana proizvodila je $638,98 \pm 613,98$ pg/ml IL-1ra, te $0,026 \pm 0,009$ pg/ml sTNF antagonista.

Zaključak:

Korisno djelovanje amnijske membrane u liječenju pacijenata sa buloznom keratopatijom može se objasniti lučenjem njenih prirodnih antagonista pro-inflamatornih citokina.

English

Title: THE EXPRESSION OF IL-1 ALPHA I TNF ALPHA IN CORNEAL CELLS OF PATIENTS WITH BULLOUS KERATOPATHY

Authors: Renata Gržetić-Lenac, Maja Merlak, Siniša Kalanj, Tamara Smrkinić, Marijana Bilen Babić, vedran Markušić

Institution: University Hospital Center Rijeka, Department of

Ophthalmology

Aim: The aim ist to investigate the concentration of inflammatory cytokines corneal cells with bullous kerathopathy (BK) and the concentration of anti-inflammatory cytokines sekreted by the amniotic membrane, and explain the effect of amniotic membrane to cure patients with BK.

Patients and methods:

In the study were included 17 patients with BK after cataract surgery with intraocular lens implantation. All patients were treated by amniotic membrane transplantation (AMT).

Results:

Corneal epithelial cells in patients suffering from BK sekreted $3,91 +/ -$ pg/ml of IL-1 alpha and $44,46 +/ - 16,8$ pg/ml TNF alpha. Levels of investigated cytokines werw significantly higher than to controls. Amniotic membrane contained $638,98 +/ - 613,98$ pg/ml IL-1ra and $0,026 +/ - 0,009$ pg/ml sTNF alpha antagonist.

Conclusion:

Beneficial clinical effect of the AMT in treating BK could be explained by its natural production of pro-inflammatory cytokine antagonists.

Naslov: Da li je povećan broj oboljelih od melanoma oka?

Autori: Lj. Perić Lazić

Ustanova: Opšta bolnica „Sveti apostol Luka,, Doboј, BiH

Cilj: Cilj rada je pokazati da li je povećano obolijevanje od melanoma oka i adneksa oka. Melanom uvee je najčešći primarni intraokularni tumor kod odraslih bijele rase u 6. i 7. deceniji.

Bolesnici i metode:

Napravljena je retrospektivna studija na osnovu podataka iz medicinske dokumentacije pacijenata liječenih od 1973 do 2012.god. na Očnom odjeljenju OB „Sveti apostol Luka,, Doboј.

Rezultati:

Operisani pacijenati sa patohistološki potvrđenom dijagnozom su podijeljeni prema godini kada je postavljena dijagnoza. Do 2000.g. obolijevalo je 0,38 pacijenata godišnje, a do 2012.g. je to 0,75 pacijenata godišnje. Srednja starosna dob je bila 59,05 godina, muškaraca 61 godinu, žena 56,8 godina. Polna zastupljenost: 10 ili 52,63 % su bile žene , a 9 ili 47,36 % su bili muškarci. Lokalizacija: 3 registrovana (15,78%) na koži kapka, limbus corneaе 2 (10,52%), konjunktiva 1 (5,26%), 13 (68,42) pacijenata je imalo melanom uvee. Sekundarni glaukom se javlja kod uznapredovalih tumora, a kod naših 6 pacijenata (31,57%) to je bio razlog javljanja oftalmologu.

Zaključak:

Od 2000.g. dolazi do skoro dvostrukog povećanja obolijevanja od melanoma u odnosu na period do 2000.g., a nagli skok je i u broju oboljelih muškaraca. Lokalizacija u tom periodu je u korist melanoma horoidee na račun ostalih lokalizacija. Od 1980.g.-1990.g. prosječna starost u vrijeme postavljanja dijagnoze bila za deceniju niža nego u ostalim dekadama posmatranja.

English

Title: Whether the increased number of patients with melanoma of the eye?

Authors: Lj. Perić Lazić

Institution: General Hospital ,Holy Apostle Luka, Doboj, Bosnia and Herzegovina

Aim: The aim is to show whether the increased incidence of melanoma of the eye and adnexa of the eye. Uvea melanoma is the most common primary intraocular tumor in Caucasian adults in the 6th and 7 decade.

Patients and methods:

Made a retrospective study using data from medical records of patients treated for 1973rd to 2012th The eye department at the OB, the Holy Apostle Luke, Doboj. The analysis included the following data: age, sex, time of illness, symptoms, duration of illness and reporting ophthalmologist, clinical presentation, ultrasound findings, fluorescein angiography and PhDg.

Results:

Surgically treated patients with histologically confirmed diagnosis are classified according to the year when it is diagnosed. By the year 2000 is 0.38 ill patients a year, and by 2012 it was 0.75 patients per year. The mean age was 59.05 years, male 61 years, women 56.8 years. Males and females: 10, or 52.63% were women, and 9 or 47.36% were male. Localization: 3 registered (15.78%) in the skin of the eyelid, limbus corneae 2 (10.52%), conjunctiva 1 (5.26%), 13 (68.42) patients had melanoma of the uvea. Secondary glaucoma occurs in advanced disease, and in our 6 patients (31.57%) that was the reason for reporting ophthalmologist.

Conclusion:

Since 2000, there is almost a double increase in the Incidence of melanoma in relation to the period up to 2000, a sudden jump in the number of infected men. Localization in this period was in favor of choroid melanoma on account of other localizations. From 1980-1990, the average age at diagnosis was for a decade lower than in other decades of observation.

Naslov: Dakriocistorinostomija u KBC Split (zadnjih 10 godina)

Autori: Sušac T, Lešin M, Ivanišević M.

Ustanova: KBC Split

Cilj: Epidemiologija i rezultati konvencionalnih i endoskopskih endonazalnih DCR.

Bolesnici i metode:

Uvidom u medicinsku dokumentaciju i operativne protokole Klinike za očne bolesti i Klinike za ORL KBC Split prikazati će se broj i vrsta operacija. Praćenjem pacijenata 6-12 mjeseci prikazati će se rezultati.

Rezultati:

Zadnjih godina povećava se broj pacijenata operiranih endoskopskom endonazalnom metodom, ali je i veći broj recidiva u odnosu na pacijente operirane konvencionalnim načinom.

Zaključak:

Kod pacijenata operiranih konvencionalnim načinom manji je broj recidiva u odnosu na pacijente operirane endoskopskim endonazalnim načinom.

English

Title: Dacryocystorhinostomy in University Hospital Centre Split (last 10 years)

Authors: Sušac T, Lešin M, Ivanišević M.

Institution: University Hospital Centre Split

Aim: Epidemiology and results of conventional and endoscopic DCR

Patients and methods:

It will be presented number of operations and two ways to perform DCR, also the results of follow up 6-12 month after.

Results:

In last 10 years there is increase number of patients which underwent an operation with endoscopic DCR, but success rate is lower.

Conclusion:
The success rate is higher with conventional DCR.

Naslov: Učinak terapije analozima prostaglandina na površinu oka kod glaukomskih bolesnika

Autori: Metež Soldo, Kata; Kaštelan, Snježana

Ustanova: Klinika za očne bolesti KB Sveti Duh, Zagreb, Zavod za očne bolesti, KB Dubrava, Zagreb

Cilj: Procijeniti promjene u stabilnosti suznog filma (TFBUT) i indeksu bolesti površine oka (OSDI) kod glaukomskih bolesnika ovisno o trajanju lokalne terapije analozima prostaglandina - dugoročne (duže od 6 mjeseci) i kratkoročne promjene (od 1 mjeseca do 6 mjeseci).

Bolesnici i metode:

Procjena stanja stabilnosti suznog filma i površine oka kod glaukomskih bolesnika na dvije redovne oftalmološke kontrole (koristili smo lošije rezultate u dva pregleda) u dva glauomska kabineta (2 istražitelja). Bolesnici su bili na terapiji analogom prostaglandina - travoprost 0,004% s BAK konzervansom, bez pritužbi na lokalne nuspojave (simptomi), ciljni IOT je bio postignut. Uključene su samo odrasle osobe, uz potpisani pristanak.

Rezultati:

Rezultati: Praćeno je 100 očiju/50 bolesnika liječenih travoprost 0,004% otopinom s BAK konzervansom. Srednja vrijednost TFBUT po oku s travoprost 0,004% terapije za kratkoročnu skupinu (18 bolesnika) je $6,34 \pm 1,31$ sekundi, u usporedbi sa srednjom vrijednosti TFBUT po oku s travoprost terapijom za dugoročnu skupinu (32 bolesnika) je $5,37 \pm 1,25$ sekundi. Srednja vrijednost OSDI rezultata za kratkoročnu skupinu bila je $16,56 \pm 6,19$ i $26,31 \pm 8,25$ za dugoročnu skupinu.

Praćenje se bazira na statusu očne površine kod bolesnika koji primaju istu terapiju - travoprost 0,004% otopina s BAK konzervansom - u dugoročnom ili kratkoročnom periodu. Zabilježena je statistički signifikantna razlika u TFBUT i OSDI u ove dvije skupine glaukomskih bolesnika.

Zaključak:

BAK je najčešći konzervans u antiglaukomskim kapima za oči i može

uzrokovati različita patološka stanja površine oka (OSD) narušavajući suzni film te povećanje konjunktivalne upale. U ovoj studiji smo pokazali dugoročni kumulativni učinak BAK-a na površinu oka. Očekujemo da će skora promjena konzervansa (BAK-a) u antiglaukomskim lijekovima sa analogima prostaglandina (PGA) u ne-BAK-PGA lijekove rezultirati boljem očuvanju stabilnosti suznog filma TFBUT, bojenja rožnice i OSDI. Potrebna su daljnja istraživanja za bolje razumijevanje utjecaja BAK-a na stanja površine oka.

English

Title: Effects of prostaglandin analog therapy on the ocular surface of glaucoma patients

Authors: Metež Soldo, Kata i Kaštelan, Snježana

Institution: Department of ophthalmology, Clinical Hospital Sveti Duh, Zagreb, Department of Ophthalmology Clinical Hospital Dubrava Zagreb

Aim: To quantify changes in tear break-up time (TBUT) and ocular surface disease index (OSDI) in glaucoma patients according to PGA therapy duration – long term (longer than 6 months) and short term (from 1 month to 6 months).

Patients and methods:

To quantify changes in tear break-up time (TBUT) and ocular surface disease index (OSDI) in glaucoma patients according to PGA therapy duration – long term (longer than 6 months) and short term (from 1 month to 6 months).

Results:

100 eyes of 50 consecutive patients using travoprost 0,004% with BAK preservative. Mean TBUT per eye with travoprost therapy for short term group (18 patients) was 6.34 ± 1.31 seconds , compared to mean TBUT per eye with travoprost therapy for long term group (32 patients) was 5.37 ± 1.25 seconds. Mean OSDI scores for the short term group was 16.56 ± 6.19 , and 26.31 ± 8.25 for long term group. This report focuses on the status of the ocular surface, as documented by TBUT and OSDI, in patients receiving the same long or short term therapy – travoprost 0,004% with BAK preservative. Statistically significant difference in TBUT and OSDI in two arms of patients was noted.

Conclusion:

BAK, a common preservative for glaucoma drops, may increase OSD by disrupting the tear film and increasing conjunctival inflammation. In

this study, we proved long term cummulative BAK effect on ocular surface. We expect in future a change from a BAK-preserved prostaglandin analog (PGA) to a non-BAK-preserved PGA to resulted in a measurable improvement of TBUT, corneal staining and OSDI. Further studies are needed to better understand the impact of BAK-preserved medications on the ocular surface.

Naslov: Utjecaj vizualizacije nalaza dijabetičke retinopatije na regulaciju glikemije

Autori: Šarolta Pinter, Željka Rogulja Pepeonik

Ustanova: SK Vuk Vrhovac, KB Merkur

Cilj: Utvrditi kako će pogled na snimke vlastitog fundusa i promjena na njemu, u usporedbi s urednim nalazom, utjecati na regulaciju šećerne bolesti

Bolesnici i metode:

U istraživanju je sudjelovalo 200 bolesnika sa šećernom bolešću tipa 1 i 2 i dijabetičkom retinopatijom (neovisno o uznapredovalosti bolesti). Nakon pregleda fundusa, podijeljeni su u dvije skupine: u 100 bolesnika rađena je fluoresceinska angiografija (FAG) te su nalaz uz objašnjenje istog dobili na uvid, a u 100 bolesnika nije rađena FAG, nego im je samo usmeno objašnjen nalaz (kontrolna skupina). Za procjenu regulacije šećerne bolesti koristilo se nekoliko vrijednosti glikoziliranog hemoglobina (HbA1c) prije i poslije pregleda i/ili FAG.

Rezultati:

Rezultati su u izradi budući da se još očekuju kontrolni nalazi HbA1c koji će biti statistički obrađeni.

Zaključak:

Postoji rad iz 1994.g., kojim je dokazana pozitivna motivacija bolesnika za redoviti dolazak na pregled fundusa nakon što im je pokazana fotografija njihovog fundusa. U skladu s tim željeli smo utvrditi može li ih to motivirati i na bolju regulaciju osnovne bolesti.

English

Title: The effect of visualising a diabetic retinopathy finding on glycaemic control

Authors: Šarolta Pinter, Željka Rogulja Pepeonik

Institution: Vuk Vrhovac University Clinic, Merkur University Hospital

Aim: To establish how seeing an image of one\\'s own fundus and its changes, in comparison with a normal finding, affects diabetes control

Patients and methods:

The study included 200 patients with type 1 and type 2 diabetes mellitus and diabetic retinopathy (regardless of the stage of disease). After fundus examination, the patients were divided into two groups: 100 patients underwent fluorescein angiography (FAG); they were shown the finding and received an interpretation of the result. Another 100 patients did not undergo FAG, and received only verbal interpretation of the finding (control group). Several glycosylated haemoglobin (HbA1c) values measured before and after the examination and/or FAG were used to assess diabetes control.

Results:

The results are under preparation, as control HbA1c findings, for statistical analysis, are being expected.

Conclusion:

In view of a study, from 1994., which has given evidence of patients\\' motivation to regularly visit ophthalmologists for fundus examination after having seen photographs of their fundus, we wished to determine whether such practice could also motivate patients to better regulate their disease.

Naslov: ULOGA OPTIČKE KOHERENTNE TOMOGRAFIJE KOD OPTIČKOG NEURITISA

Autori: Branimir Cerovski, Marija Barišić Kutija, Tomislav Vidović, Smiljka Popović Suić, Sania Vidas

Ustanova: Klinika za očne bolesti, KBC Zagreb, Medicinski fakultet Sveučilišta u Zagrebu, Hrvatska

Cilj: Degeneracija aksona i neurona je važna u patogenezi multiple skleroze (MS) i kod drugih neuroloških bolesti koje zahvaćaju prednji dio vidnog puta. Optička koherentna tomografija (OCT) je neinvazivna tehnika koja omogućava snimanje sloja retinalnih živčanih vlakana (RNFL), koji se uglavnom sastoji od aksona ganglijskih stanica te formira vidni živac, kijazmu i optički trakt. Naš cilj je ispitati debljinu RNFL, volumen makule (VM) i vidnu oštrinu kod pacijenata s optičkim neuritisom (ON).

Bolesnici i metode:

Prikazani su klinički podaci pacijenata s unilateralnim ON. Mjerena je debljina RNFL i VM kod pacijenata s ON te u kontrolnoj skupini pomoću OCT-a.

Rezultati:

Pacijenti s ON su imali značajno sniženje debljine RNFL i makularnog volumena nekoliko tjedana i mjeseci nakon akutnog ON u odnosu na kontrolnu skupinu. Težina oštećenja vida je varirala od blagog oštećenja (Snellenove tablice) do amauroze. Vidna oštrina se s vremenom popravila kod većine pacijenata te je korelirala s vrijednostima debljine RNFL.

Zaključak:

Ovom studijom prikazujemo sniženje RNFL tokom vremena kod pacijenata s ON. Smanjenje vidne oštrine povezano je s debljinom RNFL, iako njihova međusobna ovisnost nije linearна.

OCT omogućuje jedinstven uvid u strukturalne promjene prednjeg dijala vidnog puta, te uz svoju jednostavnost i visoku senzitivnost otkrivanja promjena RNFL i VM može dopuniti uobičajeni spektar pretraga kao što su neuroradiološka snimanja, vidna oštrina, vidno polje i elektrofiziološke pretrage te pomoći u razvijanju efikasnijih

strategija liječenja pacijenata s ON i MS.

English

Title: THE IMPORTANCE OF OPTICAL COHERENCE TOMOGRAPHY IN OPTIC NEURITIS

Authors: Branimir Cerovski, Marija Barišić Kutija, Tomislav Vidović, Smiljka Popović Suić, Sania Vidas

Institution: Department of Ophthalmology, Clinical Hospital Centre Zagreb, Medical School, University of Zagreb, Croatia

Aim: Axonal and neuronal degeneration are important features of multiple sclerosis (MS) and other neurologic disorders that affect the anterior visual pathway. Spectral domain optical coherence tomography (OCT) is a non-invasive technique that allows imaging of the retinal nerve fiber layer (RNFL), a structure which is principally composed of ganglion cell axons that form the optic nerves, chiasm and optic tracts. Our aim was to examine RNFL thickness, macular volumes (MV) and visual acuity (VA) in patients with history of optic neuritis (ON).

Patients and methods:

The authors presented clinical data of patients who suffer from ON and were diagnosed with unilateral optic neuritis. RNFL thickness and MV was measured in patients with history of ON and a control group using OCT.

Results:

Patients with ON had significantly decreased RNFL thickness and MV weeks to months after acute ON compared to controls. The severity of vision loss ranged from mild (Snellen charts) to no light perception (NLP). VA improved over time in most of the patients. The visual acuity tests correlated with the RNFL thickness values.

Conclusion:

The present study suggests that there is a decrease in RNFL over time in patients with ON. The visual acuity loss correlated with the RNFL thickness values, which could have clinical relevance, although visual acuity is not linearly dependent on the amount of RNFL loss.

OCT provides us unique insight in structural changes in the anterior visual pathway, it is simple and highly sensitive method for detecting changes in the RNFL and MV, therefore it may complement our existing arsenal of tools including tests of visual function, neuroimaging techniques, and electrophysiological studies and help

develop more effective therapeutic strategies for ON and MS patients.

Naslov: Spontano smanjenje kuta kod rano nastalog

konvergentnog strabizma

Autori: V. Marazovac, S. Perić, D. Mrazovac

Ustanova: KBC Zagreb

Cilj: Prikazati kliničke karakteristike pacijenata sa ranim konvergentnim strabizmom kod kojih je došlo do spontanog smanjenja kuta.

Bolesnici i metode:

Retrospektivna analiza pacijenata koji se kontroliraju u ambulanti za strabizam, KBC Zagreb. U istraživanje su uključeni pacijenti sa rano nastalim konvergentnim strabizmom kod kojih se kut spontano smanjio, bez operacije ili primjene botulinum toxina A.

Rezultati:

U našem radu obradili smo 15 pacijenata sa rano nastalim konvergentnim strabizmom koji se spontano smanjio. Kod 8 pacijenata konvergentni strabizam javio se unutar prve godine života, kod 7 pacijenata do treće godine života. Refrakcijska anomalija kod 12 pacijenata bila je hipermetropska do +3.00 Dsph i 2.00 Dcyl. Tri pacijenta imala su višu hipermetropiju od +5.00 Dsph i +1.00 Dcyl. Refrakcijska greška se u toku praćenja spontano smanjivala. Pet pacijenata prešlo je u blažu miopiju do -0.50 Dsph i -1.00 Dcyl. Duljina praćenja pacijenata iznosila je 10 godina. Na završetku praćenja: kod 5 pacijenata nema otklona, kod 6 pacijenata imamo konvergentni otklon do +5 stupnjeva, kod 4 pacijenta imamo divergentni otklon (3 pacijenta do -5 stupnjeva, 1 pacijent -10 stupnjeva). Kod svih pacijenata se tijekom praćenja provodilo konzervativno liječenje (okluzija, pleoptičke i ortoptičke vježbe). Kod 6 pacijenata se razvila NRK, kod 9 pacijenata se razvila ARK. Kod 6 pacijenata vidna oštrina obostrano je bila 1.0; kod 7 pacijenata vidna oštrina na boljem oku je bila 1.0, a na slabijem od 0.8-0.9; 2 pacijenta su imala obostrano vidnu oštrinu na kraju praćenja 0.7-0.8

Zaključak:

Rezultati ističu različitost stanja kod rano nastalog konvergentnog strabizma. Kod odluke o vremenu i mjerama operacija rano nastalog

konvergentnog strabizma, i ovu činjenicu moramo uzeti u obzir.

English

Title: Spontaneous reduction of deviation in early onset of esotropia

Authors: V.Mrazovac, S.Perić, D. Mrazovac

Institution: KBC Zagreb

Aim: This study examines the clinical characteristics of patients with early onset of esotropia who have developed a spontaneous reduction in the angle.

Patients and methods:

A retrospective analysis of patients identified by routine clinical practice in outpatient strabismus clinic. Patients with early onset of esotropia and spontaneous reduction in the angle were included (without surgery or botulinum toxin A).

Results:

This study consisted of 15 patients who were presented with an early onset of esotropia and spontaneous reduction of the angle. In 8 patients, esotropia occurred within the first year of life, in 7 patients up to three years of age. Refraction anomalies in 12 patients were hypermetropia up to +3.00 diopters and +2.00 Dcyl. Three patients had a higher hyperopia of +5.00 diopters and +1.00 Dcyl. Refractive error during the tracking was spontaneously reduced. 5 patients had developed mild myopia up to -0.50 diopters and -1.00 dcyl .Follow-up of the patients was 10 years. At the end of follow-up: 5 patients had orthophoria, 6 patients had esotropia up to +5 degrees, 4 patients had exotropia (3 of them up to -5 degrees and 1 had -10 degrees). In all patients during the follow-up complex conservative treatment was made (occlusion, pleoptic-orthoptic treatment). 6 patients were developed NRK and 9 patients ARK. 6 patients had visual acuity 1.0 in both eye; 7 patients had visual acuity 1.0 in the better eye and 0.8-0.9 on the worst one. Two patients had bilateral visual acuity at the end of follow-up 0.7-0.8.

Conclusion:

The results highlight the variability of the condition in early onset esotropia. When deciding about time and measures of surgical treatment of esotropia, this fact must be taken into account.

Naslov: Konična cerebrospinalna venska insuficijencija (CCSVI) i multipla skleroza (MS)

Autori: K. Lukanović-Primc, V. Markušić, I. Donadić-Manestar, J. Farkaš, M. Bilen Babić

Ustanova: Klinika za oftalmologiju, KBC Rijeka

Cilj: Prezentirati nova saznanja u dijagnosticiranju i liječenju multiple skleroze

Bolesnici i metode:

U Hrvatskoj od multiple skleroze boluje oko 4000 bolesnika. Mnogi od njih prezentiraju se optičkim neuritsom kao prvim ili vodećim znakom bolesti.

Rezultati:

Venska patologija povezana je sa multiplom sklerozom vise od jednog stoljeća. Izraz Konična cerebrospinalna venska insuficijencija skovao je 2008. Paolo Zamboni koji ju je opisao u pacijenata sa multiplom sklerozom. Brojne studije pokušale su razjasniti povezanost između lezija ekstracerebralnih vena i multiple skleroze i mogućnosti njihova liječenja endovaskularnim kirurškim postupkom.

Zaključak:

Više od 50 godina multipla skleroza tretirala se kao autoimuna bolest i mnoge studije posvećene su traženju adekvatnog lijeka. CCSVI teorija donosi novu nadu pacijentima oboljelima od multiple skleroze ali još uvijek mora budi dokazana studijama koje su u toku.

English

Title: Chronic cerebrospinal venous insufficiency (CCSVI) and Multiple Sclerosis (MS)

Authors: K. Lukanović-Primc, V. Markušić, I. Donadić-Manestar, J. Farkaš, M. Bilen Babić

Institution: Department of Ophthalmology, Clinical Hospital Centre Rijeka

Aim: To present new understandings in the diagnosis and treatment of

Multiple sclerosis

Patients and methods:

More than 4000 people in Croatia are suffering from Multiple sclerosis. Many of them are presented with optic neuritis as the first or leading sign of the disease.

Results:

Venous pathology has been associated with Multiple sclerosis for more than a century. The term Chronic cerebrospinal venous insufficiency was coined in 2008 by Paolo Zamboni who described it in patients with Multiple sclerosis. A number of studies have focused on trying to elucidate the possible relationship between lesions in the extra cerebral veins and Multiple sclerosis and the possibility of treating them through an endovascular surgical procedure.

Conclusion:

For more than 50 years Multiple sclerosis has been treated as an autoimmune disorder and a number of studies focused on finding the proper treatment. The CCSVI theory rises new hope for patient suffering from Multiple sclerosis but it still has to be proven with the ongoing studies.

Naslov: Spontano smanjenje kuta kod rano nastalog konvergentnog strabizma

Autori: V. Marazovac, S.Perić, D. Mrazovac

Ustanova: KBC Zagreb

Cilj: Prikazati kliničke karakteristike pacijenata sa ranim konvergentnim strabizmom kod kojih je došlo do spontanog smanjenja kuta.

Bolesnici i metode:

Retrospektivna analiza pacijenata koji se kontroliraju u ambulanti za strabizam, KBC Zagreb.U istraživanje su uključeni pacijenti sa rano nastalim konvergentnim strabizmom kod kojih se kut spontano smanjio, bez operacije ili primjene botulinum toxina A.

Rezultati:

U našem radu obradili smo 15 pacijenata sa rano nastalim konvergentnim strabizmom koji se spontano smanjio. Kod 8 pacijenata konvergentni strabizam javio se unutar prve godine života, kod 7 pacijenata do treće godine života.Refrakcijska anomalija kod 12 pacijenata bila je hipermetropska do +3.00 Dsph i 2.00 Dcyl. Tri pacijenta imala su višu hipermetropiju od +5.00 Dsph i +1.00 Dcyl. Refrakcijska greška se u toku praćenja spontano smanjivala.Pet pacijenata prešlo je u blažu miopiju do -0.50 Dsph i -1.00 Dcyl.Duljina praćenja pacijenata iznosila je 10 godina. Na završetku praćenja: kod 5 pacijenata nema otklona, kod 6 pacijenata imamo konvergentni otklon do +5 stupnjeva, kod 4 pacijenta imamo divergentni otklon (3 pacijenta do -5 stupnjeva, 1 pacijent -10 stupnjeva). Kod svih pacijenata se tijekom praćenja provodilo konzervativno liječenje (okluzija,pleoptičke i ortoptičke vježbe).Kod 6 pacijenata se razvila NRK, kod 9 pacijenata se razvila ARK.Kod 6 pacijenata vidna oštrina obostrano je bila 1.0; kod 7 pacijenata vidna oštrina na boljem oku je bila 1.0, a na slabijem od 0.8-0.9; 2 pacijenta su imala obostrano vidnu oštrinu na kraju praćenja 0.7-0.8

Zaključak:

Rezultati ističu različitost stanja kod rano nastalog konvergentnog strabizma. Kod odluke o vremenu i mjerama operacija rano nastalog

konvergentnog strabizma, i ovu činjenicu moramo uzeti u obzir.

English

Title: Spontaneous reduction of deviation in early onset of esotropia

Authors: V.Mrazovac, S.Perić, D. Mrazovac

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Aim: This study examines the clinical characteristics of patients with early onset of esotropia who have developed a spontaneous reduction in the angle.

Patients and methods:

A retrospective analysis of patients identified by routine clinical practice in outpatient strabismus clinic. Patients with early onset of esotropia and spontaneous reduction in the angle were included (without surgery or botulinum toxin A).

Results:

This study consisted of 15 patients who were presented with an early onset of esotropia and spontaneous reduction of the angle. In 8 patients, esotropia occurred within the first year of life, in 7 patients up to three years of age. Refraction anomalies in 12 patients were hypermetropia up to +3.00 diopters and +2.00 Dcyl. Three patients had a higher hyperopia of +5.00 diopters and +1.00 Dcyl. Refractive error during the tracking was spontaneously reduced. 5 patients had developed mild myopia up to -0.50 diopters and -1.00 dcyl .Follow-up of the patients was 10 years. At the end of follow-up: 5 patients had orthophoria, 6 patients had esotropia up to +5 degrees, 4 patients had exotropia (3 of them up to -5 degrees and 1 had -10 degrees). In all patients during the follow-up complex conservative treatment was made (occlusion, pleoptic-orthoptic treatment). 6 patients were developed NRK and 9 patients ARK. 6 patients had visual acuity 1.0 in both eye; 7 patients had visual acuity 1.0 in the better eye and 0.8-0.9 on the worst one. Two patients had bilateral visual acuity at the end of follow-up 0.7-0.8.

Conclusion:

The results highlight the variability of the condition in early onset esotropia. When deciding about time and measures of surgical treatment of esotropia, this fact must be taken into account.

Naslov: HEMANGIOM SPOJNICE - prikaz slučaja**Autori: Motušić Ranka, Šarić Borna****Ustanova: Klinika za očne bolesti, Klinička bolnica**

Cilj: Prikazati slučaj hemangioma spojnice

Bolesnici i metode:

Pacijentica u dobi od 15 godina je upućena na oftalmološki pregled radi rastuće tvorbe na spojnici desnog oka. Anamnestički se doznaže da je tvorba prisutna od samog rođenja, ali unatrag nekoliko mjeseci pacijentica primjećuje rast uz pojavu subjektivnih smetnji. Učinjen je kompletan oftalmološki pregled i FAG prednjeg segmenta oka.

Rezultati:

Biomikroskopskim pregledom nađe se crveno-smeđi ovalni tumor bulbarne spojnice na 9 sati s okolnim prilaznim krvnim žilama, veličine 5 x 5 mm, blago eleviran i pomican u odnosu na bjeloočnicu.

Fluoresceinska angiografija je pokazala opsežnu vaskulariziranost i nakupljanje kontrasta. S obzirom na klinički nalaz i prisutnost subjektivnih smetnji tumor je kirurški odstranjen.

Zaključak:

Kongenitalni kapilarni hemangiom se najčešće nalazi u vjeđama, a vrlo rijetko na spojnici. Može se javiti kao izolirana lezija spojnice ili u kombinaciji sa periokularnim hemangiometrom kože. U većini slučajeva karakterizira ga rast unutar prve godine života, uz kasniju stagnaciju te na kraju čak i potpunu regresiju tvorbe. Ovo je prikaz slučaja izoliranog hemangioma spojnice kod 15-godišnje pacijentice koji je nakon faze mirovanja pokazao tendenciju rasta.

English

Title: CONJUNCTIVAL HAEMANGIOMA - case report

Authors: Motušić Ranka, Šarić Borna

Institution: University Eye Clinic, University Hospital \\

Aim: Case report of conjunctival haemangioma.

Patients and methods:

Slit-lamp examination revealed red-brown, oval formation of the bulbar conjunctiva at 9 o'clock with feeder vessels, 5x5 mm of size, slightly elevated and mobile in relation to the sclera. The performed FAG showed an extensive vascularisation of the formation and the accumulation of contrast. Taking into account the clinical findings and the existence of subjective discomfort, a decision for surgical excision was made.

Results:

Slit-lamp examination revealed red-brown, oval formation of the bulbar conjunctiva at 9 o'clock with feeder vessels, 5x5 mm of size, slightly elevated and mobile in relation to the sclera. The performed FAG showed an extensive vascularisation of the formation and the accumulation of contrast. Taking into account the clinical findings and the existence of subjective discomfort, a decision for surgical excision was made.

Conclusion:

Capillary haemangioma is common on eyelids and rarely found in the conjunctiva. Conjunctival haemangioma is a congenital anomaly, generally present at birth as an elevated, soft, red nodule, shows progressive growth in the first year of life, becomes stable afterwards, and then in most cases slowly regresses. It can occur as an isolated conjunctival lesion or in association with periocular cutaneous haemangioma. This case reports an isolated conjunctiva haemangioma in a 15-year old patient showing a tendency to grow.

Naslov: ZAGREBAČKI PROGRAM PROBIRA AMBLIOPIJE

**Autori: Mladen Bušić, Mirjana Bjeloš Rončević, Biljana Kuzmanović Elabjer, Damir Bosnar, Daliborka Miletić, Ivan Čima
Ustanova: Klinika za očne bolesti, Klinička bolnica "Sveti Duh" Zagreb, Medicinski fakultet Osijek, Sveučilište Josipa Jurja Strossmayera u Osijeku**

Cilj: Prikazati jedinstveni postupnik skrininga za otkrivanje ambliopije testiranjem vidne oštrine (VO) četverogodišnjaka. Cilj istraživanja je ukazati na problem ambliopije u Gradu Zagrebu, te predložiti univerzalni model koji bi bio u funkciji nacionalnog skrininga.

Bolesnici i metode:

Monokularno testiranje vidne oštrine u oko 5000 djece/godinu stare 4-4.5 godina čini se Lea tablicama na blizinu (40 cm) i na daljinu (3 m) u vrtićima Grada Zagreba. Djeca koja na skriningu imaju VO <0.8, upućuju se na cjelovite oftalmološke preglede.

Rezultati:

Primarni ishod je odrediti prevalenciju ambliopije i ambliogenih faktora, senzitivnost i specifičnost testa. Sekundarni ishod je definirati postotak uspješno liječene djece (vidna oštrina ≥ 0.8), kao i vrijeme potrebno za postizanje navedenog.

Zaključak:

U Republici Hrvatskoj nije definirana prevalencije ambliopije i ambliogenih faktora, niti postoji nacionalni konsenzus o učinkovitom liječenju i praćenju oboljelih. Nacionalni skrining vida ne postoji do prije upisa u osnovnu školu. Probir četverogodišnjaka u Švedskoj ispitivanjem vidne oštrine na daljinu ima senzitivnost 89% i specifičnost 98%. Testiranje VO i na blizinu uvedeno je u postupnik Programa s prepostavkom povećanja senzitivnosti.

Ovo je prvo istraživanje koje u probiru koristi ispitivanje vidne oštrine Lea tablicama na blizinu i na daljinu uz kriterij upućivanja na cjelovite oftalmološke preglede VO<0.8. S obzirom da se testiraju pismena djeca, očekujemo da je uz otkrivanje refraktivne greške i ambliopije moguće otkriti i razvojne poremećaje čitanja i učenja.

English

Title: ZAGREB VISION SCREENING PROGRAM

Authors: Mladen Bušić, Mirjana Bjeloš Rončević, Biljana Kuzmanović Elabjer, Damir Bosnar, Daliborka Miletić, Ivan Čima

Institution: University Eye Clinic, University Hospital "Sveti Duh" Zagreb, School of Medicine Osijek, University Josip Juraj Strossmayer in Osijek

Aim: To present the unique design of the vision screening program for amblyopia detection. The main goal of the study is to release a model for formal, government directed national vision-screening program.

Patients and methods:

Monocular vision of about 5000 children/year aged 4-4.5 is to be tested with Lea chart at near (40cm) and distance (3m) in the kindergartens of The Town of Zagreb. The criterion for referral to complete ophthalmological examination is $VA < 0.8$.

Results:

The primary outcome is to determine the prevalence of amblyopia and amblyogenic factors, sensitivity and specificity of the test. The secondary outcome is to define the rate of successfully treated children ($VA \geq 0.8$) and time needed to reach the threshold.

Conclusion:

In Croatia, evidence-based data on the prevalence and actual effect of amblyopia and amblyogenic factors, along with treatment efficacy do not exist. National screening of preschool children has never been introduced. Visual acuity (VA) screening at 4 years in Sweden using the distance chart demonstrated sensitivity and specificity of 89% and 98% respectively. Our rationale to test the near VA in addition was to increase the sensitivity of the screening.

To our knowledge, Zagreb vision screening program is the only that uses both the near and distance VA testing of 4-4.5 years old children with $VA < 0.8$ as the referral threshold. Applied to literate children, we believe that it can identify not only refractive errors and amblyopia but also developmental reading and learning difficulties.

Naslov: USPOREDBA PRISUTNOSTI SILIKONSKOG ULJA U PREDNJOJ OČNOJ SOBICI I VISINE OČNOG TLAKA KOD BOLESNIKA S ENDOTAMPOMADOM SILIKONSKIM ULJEM

Autori: Marin Belak, Mia Zorić Geber, Goran Benčić , Zoran Vatavuk, Renata Iveković

Ustanova: Klinika za očne bolesti, Klinički bolnički centar „Sestre milosrdnice“

Cilj: Procijeniti prisutnost silikonskog ulja u prednjoj očnoj sobici i incidenciju povišenog očnog tlaka u bolesnika kod kojih je učinjena pars plana vitrektomija s endotamponadom silikonskim uljem.

Bolesnici i metode:

U studiju je uključeno 47 bolesnika sa regmatogenom ablacijom mrežnice. Svim bolesnicima je učinjena pars plana vitrektomija s endotamponadom silikonskim uljem. Intraokularni tlak (IOT) je mjerен Goldmannovim aplanacijskim tonometrom. Okularna hipertenzija je definirana kao očni tlak iznad 22 mmHg. Procjena prisutnosti silikonskog ulja u prednjoj očnoj sobici učinjena je gonioskopskim pregledom s Goldmanovom trozrcalnom lupom. Prisutnost silikonskog ulja u prednjoj očnoj sobici stupnjevana je u tri stupnja. Kontrolni pregledi su učinjeni 7, 30, 90 i 180 dana nakon operacije.

Rezultati:

27 od 47 očiju (57,45%) je razvilo povišeni IOT, dok kod 20 očiju (42,55%) nisu pronađene povišene vrijednosti IOT. Silikonsko ulje je pronađeno u prednjoj očnoj sobici u 19 od 27 očiju u grupi sa povišenim vrijednostima IOT u usporedbi sa 7 od 20 očiju sa normalnim vrijednostima IOT. Usporedba između prisutnosti silikonskog ulja u prednjoj očnoj sobici i povišenog očnog tlaka nakon pars plana vitrektomije s endotamponadom silikonskim uljem je bila statistički značajna ($P=0,004$).

Zaključak:

Prisutnost silikonskog ulja u prednjoj očnoj sobici predstavlja visoki rizik za porast očnog tlaka u očima kod kojih je učinjena endotamponada silikonskim uljem.

English

Title: CORRELATION BETWEEN SILICONE OIL IN THE ANTERIOR CHAMBER AND INTRAOCULARE PRESSURE IN VITRECTOMIZED EYES
Authors: Marin Belak, Mia Zorić Geber, Goran Benčić , Zoran Vatavuk, Renata Ivezković

Institution: University Ophthalmology Clinic, Clinical Hospital Center „Sestre milosrdnice“

Aim: To assess the presence of silicone oil in the anterior chamber and the incidence of high intraocular pressure in vitrectomized eyes.

Patients and methods:

Forty-seven eyes underwent pars plana vitrectomy with silicone oil tamponade. Ocular hypertension was defined as IOP greater than 22 mmHg. Intraocular pressure (IOP) was measured with Goldmann applanation tonometer. Biomicroscopy examination and gonioscopy were performed to assess the presence of silicone oil in the anterior chamber. Follow up examinations was at 7, 30, 90 and 180 day postoperatively.

Results:

Twenty-seven of forty-seven eyes (57,45%) developed high IOP whereas twenty eyes (42,55%) did not have a rise in IOP. Silicone oil in the anterior chamber was detected in 19 out of 27 eyes in the high IOP group compared to 7 out of 20 eyes in eyes with normal IOP. Correlation between silicone oil in the anterior chamber and raised intraocular pressure after pars plana vitrectomy with silicone oil tamponade was statistically significant ($P = 0,004$).

Conclusion:

The presence of silicone oil in the anterior chamber carries a high risk of intraocular pressure rise in eyes with silicone oil tamponade.

Naslov: Pseudoeksfolijacijski sindrom i katarakta: učestalost komplikacija kod operacije nezrele i zrele katarakte

Autori: Kalanj S., Merlak M., Gržetić- Lenac R., Bilen Babić M., Markušić V., Farkaš J.

Ustanova: Klinički bolnički centar Rijeka, Klinika za oftalmologiju

Cilj: Procijeniti perioperativne i postoperativne komplikacije operacije zrele i nezrele mrene kod očiju sa pseudoeksfolijativnim sindromom (PEX), u usporedbi sa operacijama zrele i nezrele mrene kod očiju bez ovog sindroma.

Bolesnici i metode:

Ovo je retrospektivna studija. Analizirani su klinički parametri 20 očiju sa zrelom mrenom i pseudoeksfolijacijskim sindromom i 20 očiju sa nezrelom mrenom i pseudoeksfolijacijskim sindromom, prije i nakon operacije katarakte, te je uspoređena učestalost i težina operativnih komplikacija . Dobiveni rezultati su uspoređeni sa očima podvrgnutim operaciji katarakte bez PEX sindroma.

Rezultati:

Vidna oštrina i intaraokularni tlak prije i poslije operacije, tijek operacije, postoperativne komplikacije i potreba za daljnom terapijom uspoređivani su ovisno o stupnju zrelosti mrene i PEX sindromu.

Zaključak:

Kirurgija katarakte sa PEX sindromom je povezana sa većim brojem mogućih operativnih komplikacija i često zahtjeva poseban tretman , naročito ovisno o stupnju zrelosti mrene.

English

Title: Pseudoexfoliation syndrom and cataract: complication frequency in immature and mature cataract surgery

Authors: Kalanj S., Merlak M., Gržetić- Lenac R., Bilen Babić M., Markušić V., Farkaš J.

Institution: University Hospital Center Rijeka, Department of Ophtalmology

Aim: To evaluate perioperative and postoperative surgery complications of mature and immature cataract in eyes with pseudoexfoliation syndrome (PEX), compared with surgery of mature and immature cataracts in the eyes without this syndrome.

Patients and methods:

This is a retrospective study. We analyzed the clinical data of 20 eyes with mature cataract and pseudoexfoliation syndrome and 20 eyes with immature cataract and pseudoexfoliation syndrome before and after cataract surgery and we compared the incidence and severity of operative complications . The results obtained were compared with eyes that underwent cataract surgery without PEX syndrom.

Results:

Visual acuity and intraocular pressure before and after surgery, perioperative and postoperative complications and the need for further therapy were compared depending on the degree of cataract maturity and PEX syndrome.

Conclusion:

Cataract surgery with PEX syndrome is associated with a greater number of possible operative complications and often requires special treatment, especially depending on the degree of maturity of the cataract

**Naslov: Operativna tehnika ugradnje IOL u slučaju
oštećenja stražnje kapsule**

Autori: Zdravko Mandić, Ivanka Petric,

Valentina Lacmanović N. Belak

Ustanova: Očna klinika KBC "Sestre milosrdnice\"

Cilj: Prikazati različite operativne tehnike implantacije IOL u odsustvu stražnje kapsule

Bolesnici i metode:

U retrospektivnoj studiji biti će prikazani svi bolesnici kod kojih je kod operacije došlo do oštećenja stražnje kapsule te je u naknadnom operativnom zahvatu ugrađena IOL

Rezultati:

biti će prikazani rezultati vidne oštijne intraoperativnih i postoperativnih komplikacija kod implantacije IOL u sztražnju ili prednju očnu komoricu

Zaključak:

Skleralna implantacija IOL pozauje se kao najbolja mogućnost fiksacije implantata.

English

Title: Techniques of intraocular lens suspension in the absence capsulo-zonular support

Authors: Zdravko Mandić , Ivanka Petric, Valentina Lacmanović

Institution: Eye hospital "Sestre milosrdnice "

Aim: ...

Patients and methods:

...

Results:

...

Conclusion:

..

Naslov: Kanalikularna oštećenja: rekonstrukcija

monokanalikularnim stentom

Autori: Mladen Lešin, Ljubo Znaor, Davor Galetović

Ustanova: Klinika za očne bolesti medicinskog fakulteta u Splitu, KBC Split

Cilj: Prikazati rezultate rekonstrukcija donjeg suznog kanaliča monokanalikularnim stentom

Bolesnici i metode:

Retrospektivna analiza pacijenata kojima su 23 monokanalikularna stenta ugrađena u našoj Klinici od 2007.-2011. godine.

Rezultati:

Operativni zahvat je bio uspješan u svim slučajevima osim jednoga.U razdoblju praćenja nije bilo komplikacija.

Zaključak:

Intubacija monokanalikularnog stenta je zlatni standard kod rekonstrukcije kanalikularnih lezija.

English

Title: Canicular damage:reconstruction with monocanalicular stent

Authors: Mladen Lesin, Ljubo Znaor, Davor Galetovic

Institution: Department of ophthalmology University hospital center Split

Aim: To show results of lower eyelid canicular reconstruction with monocanalicular stent.

Patients and methods:

Retrospective analisis of 23 patients with monocanalicular stent intubation from january 2007 to december 2011.

Results:

The surgery was successful in all cases except one.There was no complications in follow-up.

Conclusion:

Monocanalicular stent intubation is gold standard for canalicular damage.

Naslov: Vektorska analiza rezidualnog astigmatizma nakon implantacije torične intraokularne leće

Autori: Ivan Čima, Mladen Bušić, Damir Bosnar, Biljana

Kuzmanović Elabjer

Ustanova: Klinika za očne bolesti, Klinička bolnica „Sveti Duh“, Zagreb

Cilj: Prikaz praktične primjene Alpinsove metode analize astigmatizma kod refraktivnog iznenađenja nakon implantacije torične intraokularne leće (IOL).

Bolesnici i metode:

Bolesnik star 47 godina dolazi na pregled radi smanjene vidne oštirine lijevog oka (brojanje prstiju na 2 m). Oftalmološkim pregledom utvrđeno je da je uzrok smanjene vidne oštirine katarakta stupnja zamućenosti NO5,5 NC1 C1 prema „Lens Opacities Classification System III“. Pregledom je nađen i rožnični astigmatizam od 2,60 dioptrija (D) na osi 105°. Učinjena je mikrokoaksijalna operacija katarakte kroz rez rožnice širine 2,2 mm te je implantirana torična IOL.

Rezultati:

Tjedan dana nakon operacije pacijent se žalio da na operirano oko vidi iskrivljenu sliku, a nekorigirana vidna oštirina iznosila je 0,3 po Snellenu. Autorefraktometrijski izmjereno je 1,55 D rezidualnog astigmatizma na osi 155°, a os torične IOL bila je pozicionirana na 95°. Pomoću Alpinsove metode analize astigmatizma izračunato je odstupanje pozicije osi torične IOL te je nakon 2 tjedna učinjena rotacija IOL (video prikaz). Prvi postoperativni dan, ukupni astigmatizam izmjeren pomoću autorefraktometra iznosio je 0,25 D na osi 5°.

Zaključak:

Za uspješno rješavanje refraktivnog iznenađenja nakon implantacije torične intraokularne leće, kirurg bi trebao poznavati neku od metoda za vektorskiju analizu astigmatizma. Jedna od tih metoda, koja je relativno jednostavna za primjenu, je Alpinsova metoda analize

astigmatizma.

English

Title: Vector analysis of residual astigmatism following implantation of toric intraocular lens

Authors: Ivan Čima, Mladen Bušić, Damir Bosnar, Biljana Kuzmanović Elabjer

Institution: University Eye Clinic, University Hospital „Sveti Duh“, Zagreb

Aim: To present practical application of Alpins method of astigmatism analysis in the case of refractive surprise after toric intraocular lens (IOL) implantation.

Patients and methods:

A 47-year-old male patient presented with visual acuity (VA) of counting fingers at 2 m on the left eye. Ophthalmological examination revealed cataract which was graded NO5.5 NC1 C1 according to the Lens Opacities Classification System III. The patient had corneal astigmatism of 2.60 diopters (D) at 105°. Microcoaxial cataract surgery through the 2.2 mm clear corneal incision with toric IOL implantation was performed.

Results:

One week after the surgery the patient complained about distorted image on the operated eye. Uncorrected Snellen VA was 0.3.

Autorefractometer measured 1.55 D of residual astigmatism at 155° and the axis of toric IOL was positioned at 95°. Alpins method of astigmatism analysis was used to calculate the amount of toric IOL axis misalignment and after two weeks toric IOL rotation was performed (video shown). On the first postoperative day the net amount of astigmatism measured with autorefractometer was 0.25 D at 5°.

Conclusion:

In order to be able to solve refractive surprise after toric IOL implantation, a surgeon should be familiar with one of the methods for vector analysis of astigmatism. One of such methods, which is simple to learn and apply, is Alpins method of astigmatism analysis.

Naslov: Keratoplastika "a chaud"

Autori: Dean Šarić, Zdravko Mandić

Ustanova: Očna klinika KBC

Cilj: Prikazati naše rezultate keratoplastika sa hitnom indikacijom

Bolesnici i metode:

Retrospektivna studija tijekom dvije godine obuhvaća 29 keratoplastika sa hitnom indikacijom.

Rezultati:

Od 29 keratoplastika 21 je završena uspješno, u 2 slučaja učinjena je enukleacija, dvije reoperacije i 4 potrebne reoperacije.

Zaključak:

Rezultati studije ukazuju na potrebu smanjenja zloupotrebe kortikosteroida, te pravovremenu odluku na operativni zahvat keratoplastike "na vruće\\\"

English

Title: Keratoplasty \\

Authors: Dean Šarić, Zdravko Mandić

Institution: Eye Clinic, Clinical Hospital \\

Aim: To show our results in urgent keratoplasty

Patients and methods:

Retrospective study during two years of 29 urgent keratoplasties

Results:

Out of 29 surgeries 21 were successful, 2 cases ended in enucleation, two urgent reopertaions, and 4 reoperations needed

Conclusion:

Study results show that some undesirable outcomes could be potentially avoided by avoiding of overuse of steroids and timely referral of patients who are not responding to initial treatment.

**Naslov: PROPISIVANJE NAOČALA ČETVEROGODIŠNJAĆIMA:
PRAVILO DOKAZA ILI ISKUSTVA?**

**Autori: Mirjana Bjeloš Rončević, Mladen Bušić, Ljubica Dorn,
Biljana Kuzmanović Elabjer, Damir Bosnar, Ivan Čima,
Daliborka Miletić**

**Ustanova: Klinika za očne bolesti, Klinička bolnica "Sveti Duh"
Zagreb, Medicinski fakultet Osijek, Sveučilište Josipa Jurja
Strossmayera u Osijeku**

Cilj: Prikazati odrednice korigiranja refraktivne greške u četverogodišnjaka sukladno medicini temeljenoj na dokazima.

Bolesnici i metode:

Pregled literature i serija slučajeva.

Rezultati:

Refraktivna greška definirana je prema vrijednostima skijaskopije: hipermetropija $>+2.50$ D; astigmatizam u pravilu ili protiv pravila $\square 1.50$ D; kosi astigmatizam $\square 1.00$ D; anizohipermetropija $\square 1.00$ D, anizomiopija $\square 2.00$ D te cilindrična anizometropija $\square 1.50$ D; miopija <-1.00 D. Hipermetropija je korigirana ordiniranjem pune vrijednosti refraktivne greške prema nalazu skijaskopije umanjenoj za 1.0 D ili 1.5 D. Cilindrična komponenta refraktivne greške korigirana je ordiniranjem punog cilindra, a miopija ovisno o vidnom zahtjevu djeteta. Korekcija anizometropije sukladna je navedenim odrednicama za njezine pojedinačne sastavnice.

Zaključak:

Propisivanje naočala u ranoj životnoj dobi i danas je izazov s obzirom da su obznanjene smjernice definirane prema konsenzusu mišljenja ili profesionalnom iskustvu. Pojedine od njih odnose se na određenu životnu dob djeteta ili su nerazvrstane prema dobi djeteta. Dodatno, prag refraktivne greške kada je korekciju potrebno ordinirati i dalje nije jednoznačan, osobito stoga što je u ovoj dobi ordiniranjem naočala moguće utjecati na proces emetropizacije.

Prikazani rezultati temeljeni su na dokazima. Još uvjek nedostaju odrednice kojima bi bilo moguće predvidjeti razvoj refraktivne greške do emetropije.

English

Title: PRESCRIBING PATTERNS FOR FOUR-YEAR-OLD CHILDREN:
EVIDENCE OR EXPERIENCE?

Authors: Mirjana Bjeloš Rončević, Mladen Bušić, Ljubica Dorn, Biljana Kuzmanović Elabjer, Damir Bosnar, Ivan Čima, Daliborka Miletić

Institution: University Eye Clinic, University Hospital "Sveti Duh"
Zagreb, School of Medicine Osijek, University Josip Juraj Strossmayer
in Osijek

Aim: To present our management of refractive error correction based
on the review of the current evidence.

Patients and methods:

Review of literature and case-series.

Results:

Refractive error was defined according to retinoscopy. Spectacles were prescribed if reached $>+2.50$ D of hyperopia, undercorrecting by approximately 1.00 to 1.50 D; $\square 1.50$ D of with-the-rule or against-the-rule astigmatism giving the full cylinder; $\square 1.00$ D of oblique astigmatism giving the full amount of cylinder; $\square 1.00$ D of spherical hyperopic anisometropia, $\square 2.00$ D of spherical myopic anisometropia or $\square 1.50$ D of cylindrical anisometropia correcting the full cylinder with hyperopia or myopia correction according to age; <-1.00 D of myopia correcting it for function.

Conclusion:

Prescribing early correction remains a great challenge as current clinical guidelines are generated by consensus and based solely on professional experience. Several of these guidelines are only for a single age or a wide range of ages or refractive errors. In addition, the threshold for treating refractive errors remains controversial and the concern abounds about impeding normal process of emmetropisation as a shift of the refractive error towards emmetropia during this period still exists.

Evidence based data support these thresholds. Currently there is a lack of evidence how to accurately predict children who will eventually emmetropise.

Naslov: Prevalencija refraktivnih grešaka u četverogodišnje djece Grada Zagreba

Autori: Ivan Čima, Mladen Bušić, Mirjana Bjeloš Rončević, Biljana Kuzmanović Elabjer, Damir Bosnar

Ustanova: Klinika za očne bolesti, Klinička bolnica „Sveti Duh“, Zagreb

Cilj: Odrediti prevalenciju i vrstu refraktivnih grešaka u uzorku četverogodišnje djece Grada Zagreba.

Bolesnici i metode:

Nakon potpisivanja informiranog pristanka od strane oba roditelja, u vrtićima Grada Zagreba pregledano je 2697 djece rođene u razdoblju od 1. srpnja do 31. prosinca 2007. godine. Pregled je uključivao monokularno testiranje vidne oštrine pomoću Lea simbola na blizinu (40 cm) i daljinu (3 m). Djeca čija je vidna oštrina bila manja od 0,8 upućena su na kompletan oftalmološki pregled. Refraktivne greške određivane su pomoću skijaskopije pri čemu je miopija definirana kao sferna komponenta (SK) $\geq -1,00$ dioptrije (D), hipermetropija kao SK $\geq +2,50$ D, a astigmatizam kao cilindar $\geq 1,00$ D u slučaju kosog astigmatizma, odnosno cilindar $\geq 1,50$ D u slučaju astigmatizma prema pravilu ili protiv pravila. Anizometropija je definirana kao razlika u SK između 2 oka $\geq 1,00$ D u slučaju hipermetropije, $\geq 2,00$ D u slučaju miopije, odnosno razlika u cilindru između 2 oka $\geq 1,50$ D u slučaju astigmatizma.

Rezultati:

Od ukupnog broja od 2697 djece pregledane u vrtićima, 192 (7,1%) je upućeno na kompletan oftalmološki pregled. Nekorigirana vidna oštrina $\leq 0,5$ na barem jednom oku bila je prisutna u 43 (1,6%) djece. Refraktivne greške bile su prisutne u 51 (1,9%) djeteta, od čega miopija u 4 (8%), hipermetropija u 8 (16%), astigmatizam u 23 (45%) i anizometropija u 16 (31%) djece.

Zaključak:

Ovo je prvo izvješće iz projekta „Ambliopija u četverogodišnje djece Grada Zagreba“. Smanjena vidna oštrina kao posljedica refraktivne greške na barem jednom oku bila je prisutna u 1,9% djece.

English

Title: Prevalence of refractive errors in the four-year-old children in the City of Zagreb

Authors: Ivan Čima, Mladen Bušić, Mirjana Bjeloš Rončević, Biljana Kuzmanović Elabjer, Damir Bosnar

Institution: Universtiy Eye Clinic, University Hospital „Sveti Duh“, Zagreb

Aim: To determine the prevalence and type of refractive errors in a sample of four-year-old children in the City of Zagreb.

Patients and methods:

2697 children, born between 1st of July and 31st of December 2007., were examined in kindergartens of the City of Zagreb after obtaining written informed consent from both parents. Examination included monocular vision testing with Lea chart at near (40 cm) and distance (3 m). The criterion for referral to complete ophthalmological examination was visual acuity (VA) < 0.8 . Post-cycloplegic refraction was measured, and myopia was defined as spherical component (SC) ≥ -1.00 diopters (D), hyperopia was defined as SC $\geq +2.50$ D and astigmatism was defined as cylinder ≥ 1.00 D in case of oblique astigmatism or cylinder ≥ 1.50 in case of with-the-rule or against-the-rule astigmatism. Anisometropia was defined as difference in SC between 2 eyes ≥ 1.00 D in case of hyperopia, ≥ 2.00 D in case of myopia or difference in cylinder between 2 eyes ≥ 1.50 D in case of astigmatism.

Results:

Of the 2697 children examined in the kindergartens, 192 (7.1%) were referred to complete ophthalmological examination. Uncorrected VA ≤ 0.5 was present in at least one eye in 43 (1.6%) children. Refractive errors were present in 51 (1.9%) children. Among children with refractive errors myopia was present in 4 (8%), hyperopia in 8 (16%), astigmatism in 23 (45%) and anisometropia in 16 (31%) children.

Conclusion:

This is the first report from the project „Amblyopia in the four-year-old children in the City of Zagreb“. Reduced visual acuity due to refractive error in at least one eye was found in 1.9% of children.

Naslov: Strabismus sursoadductorius – medicinski problem ili šarm Lady Diane?

Autori: Petrinovic-Doresic J, Dorn Lj.

Ustanova: Dječji očni centar, Klinika za očne bolesti Klinička bolnica «Sveti Duh» Zagreb

Cilj: Prikazati specifičan poremećaj motiliteta oka, opisati njegove kliničke značajke, dijagnostički protokol i načine liječenja.

Bolesnici i metode:

Prikazati će se bolesnici praćeni i liječeni zbog sursoaduktornog strabizma. Karakteristična konkomitantna vertikalna devijacija u adukciji i umjerena subjektivna eksciklotorzija su razlozi prisilnom položaju glave – glava je okrenuta i nagnuta na zdravu stranu, suprotno od zahvaćenog oka. Ispravljanje glave u poziciju ravno obično dovodi do dekompenzacije i pojave manifestne hipertropije zahvaćenog oka. Hipertropija se povećava pri nagibu glave na zahvaćenu stranu (pozitivni test po Bielschowskom). U početku, poremećaj motiliteta je dobro kompenziran, odnosno radi se o vertikalnoj foriji. Pacijenti obično postanu manifestni i žale se na smetnje u kasnoj adolescenciji ili odrasloj dobi. Ordiniranje naočala s vertikalnim prizmama isprva može olakšati astenopske smetnje i intermitentnu vertikalnu diplopiju, no ako strabizam postane manifestan, indcirana je operacija. Ovo stanje treba razlikovati od ostalih vertikalnih devijacija poput pareze četvrtog kranijalnog živca ili disocirane vertikalne devijacije (DVD), jer se i dijagnostički protokoli i liječenje u tim stanjima razlikuju.

Rezultati:

Stupnjevana retropozicija donjeg kosog mišića s obzirom na količinu elevacije u adukciji kao i iznos V uzorka dovodi do smanjenja vertikalne devijacije u adukciji i posljedično ispravlja prisilni položaj glave i proširuje vidno polje binokularnog gledanja.

Zaključak:

Strabismus sursoadductorius nije rijetko stanje i njegove kliničke karakteristike čine osnovu jasnog razgraničenja prema drugim stečenim poremećajima koji zahtijevaju daljnju neuroradiološku

obradu. Jednostavna i efikasna metoda kirurške korekcije u izabranim slučajevima dovodi do dobre rehabilitacije binokularnih funkcija i oslobođanja pacijenta od prisilnog položaja glave.

English

Title: Strabismus sursoadductorius – a medical condition or Lady Di charm?

Authors: Petrinovic-Doresic J, Dorn Lj.

Institution: Children Eye Center, Univ. Clinic for Eye Diseases, Clinical Hospital «Sveti Duh», Zagreb

Aim: To present the specific eye movement disorder, describe its clinical features, diagnostic protocole and therapeutic measures.

Patients and methods:

The patients followed and treated for strabismus sursoadductorius will be presented. The characteristic concomitant vertical deviation in adduction and moderate subjective excyclotorsion are the reasons for abnormal head posture - head is turned away from the affected side and is tilted towards the healthy side. Correcting the head in upright position usually leads to decompensation and manifest hypertropia of the affected eye. Hypertropia worsens when the head is tilted towards the affected side (positive Bielschowsky head tilt test). Early on, the oculomotor disorder is often well compensated as a vertical phoria.

Patients usually become manifest and symptomatic in late adolescence or at the adult age. At first, vertical prismatic spectacle correction can help alleviating asthenopia and intermittent vertical diplopia, but if the strabismus becomes manifest, surgery is indicated. The condition should be differentiated from other vertical deviations such as fourth nerve palsy or disociated vertical deviation (DVD), as the diagnostic protocole and treatment in these disorders are different.

Results:

Graded recession of inferior oblique muscle guided by the amount of elevation in adduction as well as by the amount of V pattern, leads to reduction of vertical deviation in adduction, and consequently corrects the anomalous head position and widens the binocular field of single vision.

Conclusion:

Strabismus sursoadductorius is not a rare condition and its clinical features should be the basis of clear differentiation from other acquired disorders that demand further neuroradiological investigation. Simple and efficient method of surgical correction in selected cases

leads to good restoration of binocular function and relieving the patient of anomalous head position.

Naslov: Amelanotični maligni melanom spojnice - prikaz slučaja

Autori: V. Markušić, K. Lukanović-Primc, J. Farkaš, M. Bilen

Babić, I. Donadić-Manestar

Ustanova: Klinika za oftalmologiju, KBC Rijeka

Cilj: Melanom spojnica je relativno rijedak malignom. Najčešće se manifestira kao pigmentirani čvorić na bilo kojem mjestu na spojnici; amelanotični tumori su ružičaste boje i glatke površine.

Bolesnici i metode:

Autori rada opisuju slučaj amelanotičnog melanoma spojnice 82-godišnje žene.

Rezultati:

Citološkom, histopatološkom i imunohistokemijskom analizom utvrđen je invazivni melanom pozitivan na S-100 i MART-1 markere.

Pacijentica je prošla kirurško i kemoterapijsko liječenje te je 3 godine nakon početnog tretmana umrla od proširene metastatske bolesti.

Zaključak:

Izostanak pigmenta kod melanoma odgodio je rano otkrivanje i liječenje. Svjesnost na postojanje nepigmentiranog melanoma je ključna za rano postavljanje dijagnoze i uspješno liječenje.

English

Title: Amelanotic Malignant Melanoma of The Conjunctiva - A Case Report

Authors: V. Markušić, K. Lukanović-Primc, J. Farkaš, M. Bilen Babić, I. Donadić-Manestar

Institution: Department of Ophthalmology, Clinical Hospital Centre Rijeka

Aim: Conjunctival melanoma is a relatively rare malignancy. It is presented as pigmented nodule in any area of conjunctiva, amelanotic tumors are pink with smooth appearance.

Patients and methods:

The authors describe an amelanotic melanoma of the conjunctiva in an

82-year-old female patient.

Results:

Cytological, histopathological and immunohistochemical studies revealed an invasive amelanotic melanoma exhibiting S-100 and MART-1 positivity. The patient underwent surgical and chemotherapy treatment and three years after the initial treatment died of metastatic disease.

Conclusion:

Absence of pigmentation delayed early clinical detection and treatment. Awareness of this nonpigmented melanoma is crucial for early recognition and appropriate management.

Naslov: Vidna funkcija s fakičnom intraokularnom lećom za prednju sobicu u korekciji srednje do visoke miopije- prva iskustva

Autori: Miro Kalauz, Sanja Masnec Olujic, Rajko Kordić,

Tomislav Kuzman, Branimir Cerovski

Ustanova: Klinika za očne bolesti Medicinskog fakulteta u Zagrebu, Klinički bolnički centar Zagreb, Zagreb, Hrvatska

Cilj: CILJ: Ocijeniti učinkovitost i sigurnost fakične intraokularne leće za prednju sobicu (pIOL) u korekciji srednje do visoke miopije.

Bolesnici i metode:

METODE: Prospektivna studija uključuje bolesnike sa srednjom do visokom kratkovidnosti (raspona od - 6.50 do - 16.50 dptr) kojima su implantirane AcrySof Cachet pIOL u vremenskom periodu od veljače 2011 do veljače 2012. godine. Svim bolesnicima je učinjeno mjerjenje nekorigirane vidne oštrine na daljinu, korigirane vidne oštrine na daljinu, stabilnost refrakcije izraženu sfernim ekvivalentom, mjerjenje gustoće endotelnih stanica rožnice te su praćeni neželjeni događaji

Rezultati:

REZULTATI: Prikazani su rezultati jednogodišnjeg praćenja 8 bolesnika, odnosno 14 očiju. Šest bolesnika je operirano binokularno, a dva monokularno. Prosječna dob bolesnika je bila 43 ± 5.3 , od toga je bilo 5 žena i 3 muškarca. Svih 8 bolesnika je imalo nekorigiranu vidnu oštrinu od 0.5 i više, dok je 4 bolesnika imalo nekorigiranu vidnu oštrinu 1.0. Korigiranu vidnu oštrinu od 0.7 i više je imalo svih 8 bolesnika, a 1.0 je postiglo 7 bolesnika. Ostatna refrakcijska greška je bila + 0.50 D kod 5 bolesnika, a + 1.00 D kod 7 bolesnika

Zaključak:

ZAKLJUČAK: Rezultati jednogodišnjeg praćenja ispitanika su pokazali da fakična intraokularna leća za prednju sobicu (pIOL) omogućava zadovoljavajuću korekciju refrakcijske greške, predvidljivost rezultata korekcije i prihvatljivu sigurnost u bolesnika sa srednjom do visokom kratkovidnosti.

English

Title: Visual function with angle-supported phacic intraocular lens for correction of moderate to high myopia-first results

Authors: Miro Kalauz, Sanja Masnec Olujic, Rajko Kordić, Tomislav Kuzman, Branimir Cerovski

Institution: University Hospital Center Zagreb, Department of Ophthalmology, Zagreb, Croatia

Aim: AIM: To evaluate the safety and effectiveness of an angle-supported phakic intraocular lens (pIOL) for correction of moderate to high myopia.

Patients and methods:

PATIENTS AND METHODS: This prospective study included patients with moderate to high myopia (range -6.50 to – 16.50 diopters (D) who underwent implantation with the AcrySof Cachet pIOL from February 2011 to February 2012. Outcome measures included uncorrected distance visual acuity (UDVA), corrected distance visual acuity (CDVA), stability of the manifest refraction spherical equivalent (MRSE), adverse events, and endothelial cell density (ECD).

Results:

RESULTS: One year follow up results on eight patients (14 eyes) are evaluated. Six patients underwent bilateral eye surgery, and two unilateral.

Mean patient age was 43 ± 5.3 ; five women and 3 men are included. All eight patients had uncorrected distance visual acuity ≥ 0.5 , and four of them 1.0. Eight patients had corrected distance visual acuity ≥ 0.7 , and seven 1.0. Rest refraction was + 0.50 D in 5 patients, and + 1.00 D in seven patients.

Conclusion:

CONCLUSION: One-year findings from this study showed that angle-supported pIOL provided favorable refractive correction and predictability and acceptable safety in patients with moderate to high myopia.

Naslov: Trends in Corneal Transplant Surgery**Autori: Vladimir Pfeifer,****Ustanova: University Eye Hospital, Medical Center Ljubljana,
Slovenia**

Cilj: To introduce and discuss new techniques in corneal transplantation surgery.

Bolesnici i metode:

In last decade there was trend into the lamellar keratoplasty. New techniques were developed. In direction of minimal invasive surgery the lamellar techniques induce less trauma and provide quicker rehabilitation. The surgical outcome of lamellar surgery is comparable to penetrating keratoplasty regarding visual acuity, the rehabilitation is quicker, and some of these surgeries can be repeated. Techniques like Deep Anterior Lamellar Keratoplasty (DALK) were introduced. Anwar's technique is named Big Bubble technique and will be shown. Also all kind of posterior lamellar surgeries will be mentioned and some of them will be shown (DLEK, DSEK, DSAEK). Mellers Descemet Membrane Endothelial Keratoplasty (DMEK) will be discussed also.

Rezultati:

New minimally invasive keratoplasty techniques provide good results. Visual acuity is comparable to PKP, there is less induced astigmatism. In lamellar keratoplasty the rehabilitation time is shorter, surgically induced astigmatism is lower, procedures can be repeated with less trauma and penetrating keratoplasty (PKP) is always possible

Zaključek:

These new techniques of corneal transplantation are excellent alternative to PKP, provide shorter rehabilitation, less induced astigmatism and some of them are procedures that need to be performed only once in lifetime like DALK. In complicated cases with high risk for rejection artificial cornea can be used.

English

Title: Trends in Corneal Transplant Surgery

Authors: Vladimir Pfeifer,

Institution: University Eye Hospital, Medical Center Ljubljana, Slovenia

Aim: To introduce and discuss new techniques in corneal transplantation surgery.

Patients and methods:

In last decade there was trend into the lamellar keratoplasty. New techniques were developed. In direction of minimal invasive surgery the lamellar techniques induce less trauma and provide quicker rehabilitation. The surgical outcome of lamellar surgery is comparable to penetrating keratoplasty regarding visual acuity, the rehabilitation is quicker, and some of these surgeries can be repeated. Techniques like Deep Anterior Lamellar Keratoplasty (DALK) were introduced. Anwar's technique is named Big Bubble technique and will be shown. Also all kind of posterior lamellar surgeries will be mentioned and some of them will be shown (DLEK, DSEK, DSAEK). Mellers Descemet Membrane Endothelial Keratoplasty (DMEK) will be discussed also.

Results:

New minimally invasive keratoplasty techniques provide good results. Visual acuity is comparable to PKP, there is less induced astigmatism. In lamellar keratoplasty the rehabilitation time is shorter, surgically induced astigmatism is lower, procedures can be repeated with less trauma and penetrating keratoplasty (PKP) is always possible

Conclusion:

These new techniques of corneal transplantation are excellent alternative to PKP, provide shorter rehabilitation, less induced astigmatism and some of them are procedures that need to be performed only once in lifetime like DALK. In complicated cases with high risk for rejection artificial cornea can be used.

**Naslov: PRISTUP LIJEČENJU AMBLOPIJE NAOČALNOM
KOREKCIJOM REFRAKCIJSKE GREŠKE KROZ PERIOD
REFRAKTIVNE ADAPTACIJE**

**Autori: Edita Kondža Krstonijević, Mirjana Bjeloš Rončević,
Mladen Bušić, Biljana Kuzmanović Elabjer, Damir Bosnar,
Daliborka Miletić**

**Ustanova: Dom zdravlja Zagreb – Istok, Zagreb,
Hrvatska Sveučilište Josipa Jurja Strossmayera u Osijeku,
Medicinski fakultet Osijek, Klinička bolnica \"Sveti Duh\",
Klinika za očne bolesti, Zagreb, Hrvatska**

Cilj: Prezentacija naše metode liječenja jednostrane ambliopije temeljene na trenutnim medicinskim saznanjima.

Bolesnici i metode:

Pregled literature i primjena terapije na ciljnoj skupini.

Rezultati:

U 1/4 do 1/3 slučajeva samo nošenje naočala u periodu od 12 tjedana, periodu refraktivne adaptacije, bilo je dovoljno za postizanje normalne vidne oštchine. Kroz period refraktivne adaptacije dajemo vremena poboljšanju vidne oštchine te tako smanjujemo vidni deficit.

Zaključak:

Korekcija refrakcijske greške nošenjem naočala kao jedina terapija ambliopije je učinkovita početna terapija. Prema podacima iz literature, kao niti prema našim rezultatima nakon primjenjene terapije ne možemo odrediti koje će dijete razviti normalnu vidnu oštرينу noseći samo naočale.

English

Title: TREATMENT OF AMBLYOPIA BY SPECTACLE CORRECTION ALONE
OVER A PERIOD OF REFRACTIVE ADAPTATION

Authors: Edita Kondža Krstonijević, Mirjana Bjeloš Rončević, Mladen Bušić, Biljana Kuzmanović Elabjer, Damir Bosnar, Daliborka Miletić

Institution: Medical Centre Zagreb – Istok, Zagreb, Croatia, University

Josipa Jurja Strossmayera Osijek, University of Medicine Osijek,
University Hospital \"Sveti Duh\", University Eye Clinic, Zagreb,
Croatia

Aim: To present our intervention for unilateral amblyopia treatment
based on review of current medicine.

Patients and methods:

A review of literature and intervention case-series.

Results:

A period of spectacle wear alone for 12 weeks – refractive adaptation –
in treating amblyopia was in about quarter to third cases the only
modality needed. Allowing time for visual acuity improvement it
significantly reduced the visual deficit.

Conclusion:

Spectacle correction alone is an effective initial modality treatment of
amblyopia. Evidence-based data do not define the children who will
restore normal vision with spectacles wear alone.

Naslov: Analozi prostaglandina u terapiji uveitičkog glaukoma.
Autori: Nenad Vukojević, Tomislav Jukić, Damir Katušić, Zdenka Vukojević, Marija Štanfel
Ustanova: Klinika za očne bolesti Medicinskog fakulteta u Zagrebu, KBC Zagreb

Cilj: Prikazati mogućnost uporabe prostaglandin analoga u liječenju refraktornog sekundarnog glaukoma kod bolesnika s uveitisom.

Bolesnici i metode:

Retrospektivna analiza 19 bolesnika, 26 očiju s kroničnim uveitisom i sekundarnim glaukomom. 11 očiju je uz ostalu antiglaukomsku terapiju liječeno prostaglandin analogima. Analizirani su relaps inflamacije, pojava novog CME i odgovor IOT na terapiju.

Rezultati:

Kod svih 11 očiju je IOT je snižen na zadovoljavajuće vrijednosti. 3 od 11 očiju je prije terapije PG analogima imalo CME i pojava novog CME nije zapažena.

Zaključak:

Uporaba PG analoga kod očiju s refrakternim sekundarnim uveitičkim glaukomom može biti korisna i sigurna, ali PG analozi trebaju biti pažljivo korišteni i zasigurno nisu prvi lijek izbora za sniženje IOT kod uveitičkog glaukoma.

English

Title: The prostaglandin analogues in treatment uveitic glaucoma

Authors: Nenad Vukojević, Tomislav Jukić, Damir Katušić, Zdenka Vukojević, Marija Štanfel

Institution: University Hospital Center Zagreb - Department of Ophthalmology

Aim: To show the possibility of prostaglandin analogues use in the treatment refractory secondary uveitic glaucoma

Patients and methods:

The retrospective analysis 19 patients, 27 eyes, with chronic uveitis

and secondary glaucoma. 11 eyes, in addition with other antiglaucomatous therapy, were treated with prostaglandin analogues. The inflammation relaps, new CME appearance and IOP response were analysed.

Results:

Satisfying IOP reduction was achieved in all 11 eyes. 3 of 11 eyes had CME before PGA therapy and new CME appearance was not noted.

Conclusion:

The use of PGA in the treatment refractory uveitic glaucoma can be useful and safely, but PGA should be used with caution and this agents certainly are not the first option for IOP lowering in uveitic glaucoma.

Naslov: HOW ILL ARE OUR "HEALTHY" "CATARACT PATIENTS**Autori: Marija Ana Schwarzbartl Pfeifer , Vladimir Pfeifer****Ustanova: Eye Surgery Center Dr. Pfeifer, Ljubljana, Slovenia**

Cilj: To analyzed our cataract patients for general diseases and other ophthalmological diseases. We wanted to know how many diseases they have and how many medications they are taking every day. We also wanted to find out how many other ophthalmological diseases they have. In our surgical center we require permission for surgery in local anesthesia from their general practitioner.

Bolesnici i metode:

In our prospective study we analyzed 74 consecutive patients scheduled for cataract surgery on the first eye, one week prior to surgery.

Rezultati:

We analyzed 35 men (47,3%) and 39 female (52,7%) patients, from 24-92 years old (average 72,4 years old). 48 patients (64,8%) treated high blood pressure, 27 had diabetes (36,5%), 28 were on therapy against high blood fat or cholesterol (37,8%), 16 men were taking therapy for prostatic problems (45% of all men) , anticoagulant drugs were present in 21 patients (28,3%), average tablets taking in one day per patients were 5 (from 0-21 tablets in one day) and much more results will be presented considering general disease. Astigmatism was analyzed according to keratometric analyze, and there were 35 patients with astigmatism more than 1D (47, 3), 17 patient with myopia more than 1 D (23%), 33 patient with hypermetropia more than 1 D (44,6%), and much more results will be presented.

Zaključak:

Patients scheduled for cataract surgery have a lot of different problems considering general disease but despite all of these surgery is almost never canceled. With cataract surgery we also treat refractive problems and that why cataract surgery is the most common refractive procedure in the world.

English

Title: HOW ILL ARE OUR "HEALTHY" "CATARACT PATIENTS

Authors: Marija Ana Schwarzbartl Pfeifer , Vladimir Pfeifer

Institution: Eye Surgery Center Dr. Pfeifer, Ljubljana, Slovenia

Aim: To analyzed our cataract patients for general diseases and other ophthalmological diseases. We wanted to know how many diseases they have and how many medications they are taking every day. We also wanted to find out how many other ophthalmological diseases they have. In our surgical center we require permission for surgery in local anesthesia from their general practitioner.

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Conclusion:

Patients scheduled for cataract surgery have a lot of different problems considering general disease but despite all of these surgery is almost never canceled. With cataract surgery we also treat refractive problems and that why cataract surgery is the most common refractive procedure in the world.

Naslov: Čimbenici rizika za razvoj refraktivne greške u četverogodišnje djece

Autori: dr.sc. Jurica Predović dr.med., doc. dr. sc. Mladen Bušić dr.med., Mirjana Bjeloš Rončević dr.med., dr.sc. Ivan Čima dr.med

Ustanova: Klinika za očne bolesti, Klinička bolnica „Sveti Duh“, Zagreb, Medicinski fakultet Osijek, Sveučilište Josipa Juraja Strossmayera u Osijeku

Cilj: Odrediti rizične čimbenike za razvoj refraktivne greške u četverogodišnje djece

Bolesnici i metode:

Prospektivna studija je provedena u sklopu projekta „Ambliopija u četverogodišnje djece Grada Zagreba“ na 2697 djece u dobi između 4 i 4,5 godina koja pohađaju vrtiće u Gradu Zagrebu. Ispunjavan je upitnik o postojanju rizičnih čimbenika za razvoj ambliopije. Testirana je monokularna vidna oštrina na blizinu (40 cm) i daljinu (3 m) Lea tablicama. Upitnik je sadržavao pitanja o terminu poroda djeteta, porođajnoj masi, bolestima/poremećajima oka u obitelji i u djetetu, teškim kroničnim bolestima djeteta, lijekovima koje dijete uzima, pušenju te teškim ili genskim bolestima u obitelji djeteta. Djeci čija je vidna oštrina na blizinu ili daljinu bila manja od 0,8 učinjen je kompletan oftalmološki pregled uz objektivno određivanje refraktivne greške metodom skijaskopije. Kratkvidnost je definirana kao refraktivna greška sa sfernom komponentom (SC) ≥ -1.00 dioptrija (D), dalekovidnost sa SC $\geq +2.50$ D te astigmatizam s ≥ 1.00 D cilindra u slučaju kosog astigmatizma, odnosno ≥ 1.50 D cilindra u slučaju pravilnog i nepravilnog astigmatizma. Anizometropija je definirana kao razlika SC između očiju ≥ 1.00 D u dalekovidnih, ≥ 2.00 D u kratkovidnih te ≥ 1.50 D cilindra kod astigmatskih očiju. Studentovim t testom određivane su razlike u rizičnim čimbenicima za razvoj ambliopije navedenim u upitniku između skupine djece kod kojih je nađena (n=52), odnosno nije (n=2645) nađena refraktivna greška.

Rezultati:

U djece kojima je utvrđena refraktivna greška nađeno je statistički

značajno više refraktivnih grešaka u obitelji, pridruženih ostalih bolesti oka i kroničnih bolesti u odnosu na kontrolnu skupinu.

Zaključak:

U ovom radu prikazani su prvi rezultati prospektivne studije „Ambliopija u četverogodišnje djece Grada Zagreba“ o čimbenicima rizika za razvoj refraktivne greške. Postojanje refraktivne greške u članova obitelji i kronične bolesti djeteta rizičan su čimbenik za postojanje refraktivne greške u četverogodišnjeg djeteta.

English

Title: The risk factors for development of refractive error in four-year-old kids

Authors: Jurica Predović MD, PhD, Assist. Prof. Mladen Bušić MD, PhD, Mirjana Bjeloš Rončević MD, Ivan Čima MD, PhD

Institution: University Eye Clinic, University Hospital „Sveti Duh“, Zagreb, School of Medicine Osijek, University of Josip Juraj Strossmayer Osijek

Aim: Determination of risk factors for the development of refractive error in four-year-old kids

Patients and methods:

This study was conducted on 2697 kindergarten children from Zagreb, aged 4 to 4,5 years, as a part of prospective research project „Amblyopia in the four-year-old children in the City of Zagreb“. Initial testing consisted of an ophthalmology examination and a questionnaire about risk factors for developing amblyopia. A questionnaire included questions of gestation length, birth weight, kid and his family eye diseases/anomalies, chronic diseases, medication usage, smoking and chronic/genetic family diseases. Examination included monocular vision testing with Lea chart at near (40 cm) and distance (3 m). The criterion for referral to complete ophthalmological examination was visual acuity (VA) < 0.8 . Post-cycloplegic refraction was measured, and myopia was defined as spherical component (SC) ≥ -1.00 diopters (D), hyperopia was defined as SC $\geq +2.50$ D and astigmatism was defined as cylinder ≥ 1.00 D in case of oblique astigmatism or cylinder ≥ 1.50 in case of with-the-rule or against-the-rule astigmatism. Anisometropia was defined as difference in SC between 2 eyes ≥ 1.00 D in case of hyperopia, ≥ 2.00 D in case of myopia or difference in cylinder between 2 eyes ≥ 1.50 D in case of astigmatism. Student t test was used to determine differences in groups of kids with (n=52) and without (n=2645) refractive error regarding risk factors for developing amblyopia.

Results:

Compared to control group, there were statistically significantly more refractive errors among children with other eye anomalies, chronic diseases and whose family members have refractive error.

Conclusion:

This is the first report from the project „Amblyopia in the four-year-old children in the City of Zagreb”. Chronic disease and family member with refractive error are risk factors for having a refractive error among four-year-old kids.

Naslov: Preciznost mjerenja debljine sloja retinalnih živčanih vlakana putem Stratus OCT-a kod pacijenata s glaukomom

Autori: Ana Maria Karakaš,dr.med; Nadežda Bilić,Dr.sc.; Luka Bilić,dr.med.

Ustanova: Poliklinika Bilić Vision

Cilj: Procijeniti osjetljivost i specifičnost mjerenja debljine sloja retinalnih živčanih vlakana putem Stratus OCT-a, te vrijednost ove pretrage u odnosu na nalaz automatske perimetrije koji predstavlja zlatni standard u postavljanju dijagnoze glaukoma.

Bolesnici i metode:

Istraživanje je uključilo 15 pacijenata s galukomom i 15 zdravih ispitanika. Mjerenje debljine sloja retinalnih živčanih vlakana provedeno je putem Stratus OCT-a. Za ispitivanje promjena u vidnom polju rađena je automatska perimetrija pomoću vidnog polja Octopus 300 u G1 programu.

Rezultati:

Osjetljivost i specifičnost mjerenja debljine sloja retinalnih živčanih vlakana za glaukom bila je 93,33% te 86,67%. Pozitivna prediktivna vrijednost, negativna prediktivna vrijednost te dijagnostička točnost bile su 87,50%, 92,85% i 90%.

Zaključak:

Istraživanje je pokazalo veliku osjetljivost i specifičnost mjerenja debljine sloja retinalnih živčanih vlakana pomoću Stratus OCT-a u postavljanju dijagnoze glaukoma. Mjerenje debljine sloja retinalnih živčanih vlakana je objektivna metoda jer ne ovisi o suradnji pacijenta kao ni o subjektivnoj procjeni izgleda glave vidnog živca.

English

Title: Accuracy of retinal nerve fiber layer measurements by Stratus Optical Coherence Tomography for Glaucoma patients

Authors: Ana Maria Karakaš,MD; Nadežda Bilić, MD,PhD; Luka Bilić,MD

Institution: Polyclinic Bilić Vision

Aim: To calculate the sensitivity and specificity of retinal nerve fiber layer (RNFL) measurement by Stratus OCT and the value of this method in comparison to automatic perimetry as the gold standard in glaucoma diagnostics.

Patients and methods:

Fifteen glaucoma patients and fifteen healthy subjects were included. RNFL thickness was measured by Stratus OCT. Visual field defects were detected by automatic perimetry using Octopus 300 in G1 program.

Results:

The sensitivity and specificity of RNFL measurements for glaucoma using OCT were 93,33% and 86,67% respectively. Positive predictive value, negative predictive value and diagnostic accuracy were 87,50%, 92,85% and 90,0% respectively.

Conclusion:

The investigation showed high sensitivity and specificity of RNFL measurements by Stratus OCT in diagnosing glaucoma. RNFL measurements are objective and independent of patient cooperation and subjective clinical interpretation of optic disc appearance.

Naslov: Kroslinking kombiniran sa fotorefrakcijskom keratektomijom kod pacijenata sa sumnjom u razvoj keratokonusa

Autori: Dean Šarić, Zdravko Mandić

Ustanova: Očna klinika KBC\ "Sestre milosrdnice\"

Cilj: Prikazati naše rezultate kroslinkinga kombiniranog sa fotorefrakcijskom keratektomijom kod pacijenata sa sumnjom u razvoj keratokonusa

Bolesnici i metode:

Grupa pacijenata sa sumnjom na mogući razvoj keratokonusa podvrgnuta je kroslinkingu, te kasnije fotorefrakcijskoj keratektomiji. Rezultati ove grupe uspoređeni su sa rezultatima fotorefrakcijske keratektomije pacijenata bez znakova mogućeg razvoja keratokonusa

Rezultati:

Nije zapažena značajna razlika u ishodu dviju ispitivanih grupa

Zaključak:

Kroslinking u kombinaciji s fotorefrakcijskom keratektomijom predstavlja zadovoljavajuće rješenje za pacijente sa sumnjom na mogući razvoj keratokonusa

English

Title: Cross-linking combined with PRK for keratoconus suspects- first results

Authors: Dean Šarić, Zdravko Mandić

Institution: Eye Clinic, Clinical Hospital \ "Sisters of Charity

Aim: To show our results in cross-linking combined with PRK for keratoconus suspects

Patients and methods:

5 keratoconus suspects underwent refractive surgery combined with corneal crosslinking. Results of their surgery was compared with control group that underwent refractive surgery alone.

Results:

No difference in clinical outcome was found comparing normals with keratoconus suspects

Conclusion:

Cross-linking combined with PRK seems to be valuable option for keratoconus suspects

Naslov: ŠESTOMJESEČNO PRAĆENJE HITNIH OFTALMOLOŠKIH STANJA U CENTRU ZA HITNU MEDICINU KBC ZAGREB

Autori: Ivan Škegro, Rajko Kordić, Tomislav Kuzman, Sonja Jandroković, Miro Kalauz

Ustanova: KBC Zagreb

Cilj: Utvrditi koliko je vremena prošlo od početka simptoma do javljanja u hitnu oftalmološku ambulantu i jesu li bolesnici prethodno pregledani i upućeni od strane liječnika primarne zdravstvene zaštite. Ujedno smo željeli ustanoviti najčešće razloge dolazaka pacijenata u hitnu oftalmološku ambulantu KBC Zagreb.

Bolesnici i metode:

Prospektivno istraživanje. U ispitivanje je uključeno 515 bolesnika pregledanih u hitnoj oftalmološkoj ambulanti kroz šest mjeseci. Analizom su obuhvaćeni demografski podatci, vrijeme od početka simptoma do dolaska u hitnu ambulantu, posjedovanje uputnice od liječnika za hitan pregled i dijagnoza postavljena u hitnoj ambulanti nakon obrade. Dobiveni podatci su statistički obrađeni.

Rezultati:

164 bolesnika se javilo na pregled isti dan nakon pojave simptoma, 213 unutar dva dana, a ostali su došli nakon trećeg dana. 129 bolesnika je prethodno pregledano i upućeno radi daljnog liječenja u hitnu oftalmološku ambulantu.

Zaključak:

Istraživanje upućuje na činjenicu da bolesnici većinom dolaze direktno na pregled u hitnu službu, pri čemu zaobilaze nadležne liječnike primarne zdravstvene zaštite. Premda se najčešće radilo o ozljedama ili upalama, samo 32% bolesnika je došlo u prvom danu, što upućuje na zaključak da su ostali bolesnici mogli biti pregledani od strane liječnika primarne zdravstvene zaštite te upućeni nadležnim oftalmolozima.

English

Title: SIX MONTH OUTCOME OF OCULAR RELATED EMERGENCIES IN UNIVERSITY HOSPITAL CENTRE ZAGREB

Authors: Ivan Škegrov, Rajko Kordić, Tomislav Kuzman, Sonja Jandroković, Miro Kalauz

Institution: KBC Zagreb

Aim: To determine how much time has passed since the onset of symptoms to arrival at the emergency clinic, and whether patients were previously reviewed and referred by primary care physicians. Also what were the most frequent reasons for patients' attendance to the emergency ophthalmic unit at KBC Zagreb.

Patients and methods:

A prospective study. The study included 515 patients examined in the emergency ophthalmologic unit during six months. The analysis included demographic data, time from onset of symptoms to arrival at the emergency unit, having a medical referral from a primary care physician for an urgent examination and the established diagnosis after diagnostic procedure. The obtained data were statistically analyzed.

Results:

164 patients came the same day after onset of symptoms, 213 within two days, while the rest came after three days. 129 patients were previously examined by primary care physician and sent for further treatment in ophthalmic emergency clinic.

Conclusion:

The study suggests that most patients come directly to the emergency department, while bypassing the primary care physicians. Although most of the reasons were injuries or inflammation, only 32% of cases came in the same day, suggesting that other patients could be reviewed by primary care physicians and sent to the competent ophthalmologists.

Naslov: Involutivne promene anoftalmičke orbite

Autori: Bogdanović Miroljub, Žikić Zoran

**Ustanova: Gamma Medicina Okuloplastična Hirurgija i Očna
Protetika, Beograd, Srbija**

Cilj: Analiza vrste i učestalosti involutivnih anatomskih promena u orbiti nakon hirurškog odstranjenja oka

Bolesnici i metode:

Retrospektivna analiza medicinsko-protetske dokumentacije 1491 pacijenta, okulo-protetski tretiranih u našoj ustanovi u periodu 2003-2012. god.

Rezultati:

Prisustvo orbitalnog implanta je evidentirano u 432(29%) slučajeva. U 984 (66%) orbita došlo je do antero-inferiorne migracije implanta / orbitalnih tkiva. Kod 641 (43%) pacijenata je konstatovana insuficijencija / kontrakcija konjunktivalnih forniksa. U 730 (49%) slučajeva je postojao poremećaj pozicije /apozicije očnih kapaka.

Zaključak:

Involutivne promene su učestalije u anoftalmičkim orbitama bez ugrađenog orbitalnog implanta. Neadekvatna hirurška tehnika i loše održavanje očne proteze negativno utiču na stanje anoftalmičke orbite.

English

Title: Involutional changes of the anophthalmic orbit

Authors: Bogdanovic Miroljub, Zikic Zoran

Institution: Gamma Medicine Oculoplastic Surgery and Ocular Prosthetics

Aim: Analysis of the type and frequency of involutional anatomical changes in the orbit after surgical eye removal

Patients and methods:

Retrospective analysis of medical-prosthetic records of 1491 patients, who underwent ocular prosthetic treatment at our institution in the

period 2003-2012.

Results:

An orbital implant was present in 432(29%) cases. In 984 (66%) orbits an antero-inferior migration of the implant / orbital tissues was present. In 641 (43%) patients we noted insufficient / contracted conjunctival fornices. Eyelid malposition was present in 730 (49%) cases.

Conclusion:

Involutional changes are more frequent in anophthalmic orbits without an orbital implant. Inadequate surgical technique and poor ocular prosthesis maintenance have a negative influence on the state of the anophthalmic orbit.

Naslov: Prikaz slučaja: Razvoj vida u djevojčice s obostranim kolobomima irisa, uz nošenje kontaktnih leća

Autori: Dr S. Miljak

Ustanova: Klinički bolnički centar Split, Klinika za očne bolesti

Cilj: Prikazati slučaj fitanja kontaktnih leća sedmomjesečnoj djevojčici s obostranim kolobomima irisa. Za pretpostaviti je bilo da je nužno provesti intenzivnu terapiju u smislu preveniranja ambliopije

Bolesnici i metode:

Da bi se reducirao intenzitet upadnog svjetla,djevojčica je u dobi od sedam mjeseci dobila kozmetske leće u kombinaciji s naočalama.

Učinjena je skijaskopija, te je ustanovljen miopski astigmatizam oba oka.U dobi od četiri godine prefitana je na gaspermeabilne kontaktne leće.

Rezultati:

Djevojčica, sada u dobi od šest godina, ima vidnu oštrinu od 0,8 na 3 m na oba oka,kao i binokularni vid.

Zaključak:

Sustavno tretirana s dvije različite vrste kontaktnih leća u kombinaciji s naočalama, djavojčica je razvila dobar vid.Nemoguće je ustanoviti da li bi takvi rezultati bili postignuti samo uz nošenje naočala. Za pretpostaviti je da su kontaktne leće odigrale značajnu ulogu u razvoju vida.

English

Title: CASE REPORT: Restoring visual acuity with contact lenses of a child with bilateral iris coloboma

Authors: Dr S. Miljak

Institution: UNIVERSITY HOSPITAL CENTRE SPLIT Department of
Ophtalmology

Aim: To present fitting contact lenses to a seven month old baby with bilateral iris coloboma. Presumption was that she would develop a certain degree of amblyopia without treatment in that sensitive period of visual development.

Patients and methods:

To reduce the intensity of entering light, she was first fitted with cosmetic contact lenses which she has been wearing on a part time basis in combination with spectacles. She underwent retinoscopy and was found to have myopic astigmatism. At the age of four she has been refitted with RGP contact lenses

Results:

Results: The girl, now six years old, has visual acuity of 0,8 in both eyes at 3m and binocular vision

Conclusion:

Conclusion : Extensively treated with two different kind of contact lenses as well as with glasses, the girl has developed very good visual acuity and binocular vision. It is inconclusive whether she would have developed good binocular vision by wearing spectacles alone. It is very likely that contact lenses have played a great role in the process of visual development

Naslov: Vidni poremećaji udruženi sa cerebralom paralizom

Autori: N. Striber, D. Francesci-Fatuta, B. Dawydowsky, M.

Đurašin

Ustanova: KBC \" Sestre milosrdnice \", Klinika za dječju kirurgiju

Cilj: Utvrditi učestalost vidnih poremećaja kod djece sa CP

Bolesnici i metode:

Cerebralna paraliza je klinički entitet kojim se označava grupa neprogresivnih, ali često promjenjivih motoričkih poremećaja. Uzrok cerebralne paralize je oštećenje mozga u ranom perinatalnom periodu ili ranoj dojeničkoj dobi. Lezije koje uzrokuju CP mogu dovesti do oštećenja i drugih sustava. Djeca s CP često imaju pridružena blaža ili teža neurorazvojna odstupanja: poremećaj vida, sluha, epilepsiju, intelektualni deficit, poremećaj govora, osjeta i percepcije. Vidni poremećaji javljaju se u visokom postotku djece sa CP i uključujući različite refrakcijske anomalije, strabizam, slabovidnost , nistagmus.

Rezultati:

Materijal : ispitivana je skupna djece sa CP koja se liječe u Klinici za pedijatriju KBC " Sestre milosrdnice" Kod sve djece je učinjen standardni oftalmološki pregled, pregled bimikroskopom , određivanje refrakcije, pregled očnog dna , određivanje kuta škiljenja.

Zaključak:

U ispitivane skupine djece registriran je veliki postotak različitih vidnih poremećaja koji odgovaraju podacima u literaturi.

English

Title: Visual disorders associated with Cerebral palsy

Authors: N. Striber, D. Francesci-Fatuta,B. Dawydowsky, M. Đurašin

Institution: Clinical Hospital Center\" Sisters of Charity\",Department of Pediatric Surgery

Aim: Determine the incidence of visual disorders in children with CP

Patients and methods:

Cerebral palsy is a clinical entity that denotes a group of non-progressive, but often variable motility disorders. The cause of cerebral palsy is a brain damage that happened in an early perinatally period or in an early infancy. The lesions that cause Cp can lead to damages in other systems. The children with Cp frequently have associated less or more severe neurodevelopmental deviations:, epilepsy, intellectual deficit, speech, sence, percepcion, vision and hearing disorders. Vision disturbances have been occurred in high percentage of children with CP, including different refractive anomalies, strabismus, amblyopia, nystagmus

Results:

Material: the examined group of children with CP and who are treated in KBC "Sestre milosrdnice". With all children has been made standard ophthalmological examination, bimikroskopie examination, determination of the refraction, fundus examination, determination of angle of sqinting.

Conclusion:

In examined group has been registered high percentage of different vision disorders that are correspondant to the data from literature.

Naslov: KOMBINIRANA UPOTREBA SUBKONJUNKTIVALNIH I INTRAKORNEALNIH INJEKCIJA BEVACIZUMABA I ARGON LASER FOTOKOAGULACIJE U TERAPIJI NEOVASKULARIZACIJA ROŽNICE UZROKOVANIH TRAUMOM ILI INFEKCIJOM ROŽNICE
Autori: Čaljkušić-Mance Tea, Kovačević Damir, Valković Aldo, Mrak Bernard
Ustanova: KBC Rijeka, Klinika za oftalmologiju

Cilj: Prikazati kliničku upotrebu i sigurnost subkonjunktivalnih i intrakornealnih injekcija bevacizumaba kombiniranih s perilimbalom argon laser fotokoagulacijom u liječenju neovaskularizacija rožnice.
Bolesnici i metode:

Studija uključuje 10 pacijenata kod kojih su se razvile neovaskularizacije rožnice, 4 uz ožiljak nakon perforativne ozljede oka i 6 kod bulozne keratopatije nakon herpetičkog keratitisa. Injekcije smo davali jednom mjesечно od 3 do 6 puta i to 2.5 mg bevacizumaba, od čega 1.25 mg subkonjunktivalno i 1.25 mg intrakornealno te ih po potrebi dopunjavali s perilimbalom argon laser fotokoagulacijom. Tijekom perioda praćenja ovisno o kliničkom odgovoru ispitali smo postotak zahvaćene kornealne površine kao i najbolju korigiranu vidnu oštrinu prije i nakon tretmana.

Rezultati:

Svi pacijenti pokazali su redukciju u postotku područja rožnice zahvaćenog neovaskularizacijom. Primjetili smo bolje rezultate kod pacijenata s neovaskularizacijama koje su bile posljedica perforativne ozljede rožnice nego nakon herpetičkog keratitisa. Najbolja korigirana vidna oštrina bila je bolja u nekim slučajevima, ali ne više od 3 linije.

Zaključak:

Dosadašnji rezultati pokazuju da je kombinacija subkonjunktivalnih i intrakornealnih injekcija bevacizumaba potpomognuta perilimbalom argon laser fotokoagulacijom efikasna metoda u redukciji neovaskularizacija rožnice. Kombiniranim tretmanom postižemo veći postotak smanjenja zahvaćenog područja i produžujemo period do

pojave novih neovaskularizacija. Potrebno je praćenje od nekoliko godina da bismo mogli govoriti o konačnom ishodu terapije.

English

Title: COMBINED USE OF SUBCONJUNCTIVAL AND INTRACORNEAL BEVACIZUMAB INJECTION WITH ARGON LASER PHOTOCOAGULATION FOR CORNEAL NEOVASCULARIZATION SECONDARY TO CORNEAL TRAUMA OR INFECTION

Authors: Čaljkušić-Mance Tea, Kovačević Damir, Valković Aldo, Mrak Bernard

Institution: Department of Ophtalmology, University Hospital Rijeka

Aim: To report on the safety and efficacy of combined subconjunctival and corneal intrastromal bevacizumab injections and perilimbal argon laser photocoagulation for corneal neovascularization secondary to corneal trauma or infection.

d corneal intrastromal injection and perilimbal argon laser photocoagulation for

Patients and methods:

A case interventional study enroled 10 patients with corneal neovascularization, 4 secondary to corneal trauma and 6 secondary to corneal infection. We gave monthly combined subconjunctival and intracorneal bevacizumab injection and if it was necesary treated them with perilimbal argon laser photocoagulation. Patients received 3-6 injections during follow-up period according to the clinical response. We evaluated percentage of involved corneal surface and best corrected visual aquity before and after the treatment.

Results:

All patients had marked regression of corneal neovascularization. We noticed the better results in patients with corneal neovascularization secondary to corneal trauma. The change in best corrected was noticed in some patients but less than three lines.

Conclusion:

Short-term results suggest that combined subconjunctival and intracorneal bevacizumab injection supported by perilimbal argon laser photocoagulation are an effective method for reducing corneal neovascularization. Combined treatment is more succesfull than solitary treatment. We need further evaluation for investigate final result of treatment.

Naslov: Rezultat liječenja ablacijske mrežnice kod „optic disc pit-a“

Autori: Jukić T., Katušić D., Vukojević N., Štanfel M.

Ustanova: Klinika za očne bolesti Medicinskog fakulteta, KBC Zagreb

Cilj: Prikazati rezultat liječenje pacijentice sa „optic disc pit“ makulopatijom i razmotriti dostupne terapijske opcije.

Bolesnici i metode:

Pacijentica u dobi od 44 godine se javlja na oftalmološki pregled zbog pada vidne oštrine na desnom oku u trajanju od 3 mjeseca. Pri prezentaciji, vidna oštrina po Snellenu iznosila je 0.1. Pregled očne pozadine i nalaz optičke koherentne tomografije potvrđuje dijagnozu „optic disc pit“ makulopatije. Učinjena je pars plana vitrektomija (PPV) uz tamponadu silikonskim uljem.

Rezultati:

Postoperativno najbolje korigirana vidna oštrina iznosila je 0,3.

Pregledom očne pozadine utvrđeno je smanjenje nivoa tekućine u makuli, što je i potvrđeno nalazom optičke koherentne tomografije.

Zaključak:

: „Optic disc pit“ kao kongenitalnu anomaliju vidnog živca je prvi opisao Wiethe, 1882. godine kod pacijentice u dobi od 62 godine. Životna dob u kojoj se javlja ablacija mrežnice je varijabilna, najčešće oko 30. godine života. Patogeneza „optic disc pit“ makulopatije ostaje nerazjašnjena. Postoje pretpostavke da submakularna tekućina potječe iz staklovine ili je riječ o cerebrospinalnom likvoru. Najšire prihvaćen oblik liječenja kod takvih pacijenata je kirurški zahvat: pars plana vitrektomija sa ili bez odstranjenja unutarnje granične membrane, sa ili bez fotokoagulacije endolaserom uz temporalni rub optičkog diska i uz endotamponadu sa C3F8. Uspješnost različitih modaliteta operativnog liječenja je varijabilna te optimalni oblik liječenja još uvijek nije utvrđen.

English

Title: Result of the treatment of macular detachment associated with an optic disc pit

Authors: Jukić T., Katušić D., Vukojević N., Štanfel M.

Institution: University hospital Zagreb, Department of ophthalmology

Aim: To report the outcome of patient with optic pit maculopathy and discuss possible treatment options

Patients and methods:

A 44-year-old woman was referred for right optic disc pit maculopathy with reduced visual acuity to 0,1(Snellen chart) of 3 months duration.

Fundus examination and Optical Coherence Tomography (OCT) confirmed the diagnosis. Parsplana vitrectomy (PPV) was carried out. Internal tamponade was achieved with silicone oil.

Results:

Postoperatively, best corrected visual acuity improved to 0,3. Macula was flattened on biomicroscopy, and also confirmed by optical coherence tomography.

Conclusion:

Optic disc pit as a congenital optic nerve abnormality was first described by Wiethe in 1882 in a 62-year-old woman. The age at onset of the retinal detachment is variable, with the mean being 30 years.

The pathogenesis of optic disc pit maculopathy remain unclear. It has been suggested that submacular fluid originates either from vitreous or cerebrospinal fluid. The most widely accepted treatment for such patients is a surgical approach involving pars plana vitrectomy with or without internal limiting membrane peeling, with or without endolaser photocoagulation to the temporal margin of the optic disc and C3F8 endotamponade. Some authors suggest only pars plana vitrectomy with induction of a posterior vitreous detachment (PVD). The success rate in different strategies is variable and optimal management of optic pit-related maculopathy remains to be determined.

Naslov: Debljina rožnice u raznim oblicima glaukoma
Autori: Jelena Farkaš, Zvjezdana Alpeza Dunato, Maja Novak
Stroligo, Ines Donadić Manestar, Marijana Bilen Babić
Ustanova: KBC Rijeka, Ghetaldus Zagreb

Cilj: Usporedba debljine rožnice u raznim oblicima glaukoma u odnosu na zdrave oči.

Bolesnici i metode:

- Studija procjenjuje debljinu rožnice dobivenu spekularnim mikroskopom u 5 grupa pacijenata: 30 pacijenata s glaukomom otvorenog kuta, 30 pacijenata s glaukomom zatvorenog kuta, 30 pacijenata s pseudoeksfolijativnim glaukomom, 25 pacijenata s kongenitalnim glaukomom te u 50 pacijenata osoba bez glaukoma-kontrolna skupina.

Rezultati:

Debljina rožnice je bila statistički značajno tanja u pacijenata s glaukomom negoli u zdravih osoba.

Zaključak:

Debljina rožnice je izuzetno važan parametar kod raznih oblika glaukoma zbog razlika u visini intraokularnog tlaka

English

Title: Corneal thickness in different types of glaucoma in relation to healthy eyes

Authors: Jelena Farkaš, Zvjezdana Alpeza Dunato, Maja Novak Stroligo, Ines Donadić Manestar, Marijana Bilen Babić

Institution: University Hospital of Rijeka, Ghetaldus Zagreb

Aim: To evaluate central corneal thickness in different types of glaucoma in relation to healthy eyes

Patients and methods:

- A study assessed corneal thickness using a specular microscope in the following 5 groups of patients: 30 patients with open-angle glaucoma, 30 patients with pseudoexfoliation glaucoma, 30 patients with angle closure glaucoma, 25 patients with congenital glaucoma, and 50 patients without glaucoma (control group)

Results:

Central corneal thickness was significantly thinner in cases with glaucoma than in healthy eyes

Conclusion:

Corneal thickness is very important parameter in different types of glaucoma due to different level of intraocular pressure

Naslov: Rezultati implantacije toričnih intraokularnih leća nakon fakoemulzifikacije

Autori: Igor Knežović, Rajka Kasalica-Žužul, Jasmina Salopek Rabatić, Mirna Belovari Visnjic

Ustanova: Zavod za oftalmologiju, Klinička bolnica Dubrava; Očni odjel, Opća bolnica Čakovec

Cilj: Procijeniti refraktivni ishod i stabilnost intraokularne leće (IOL) nakon korekcije preoperativnog rožničnog astigmatizma u kirurgiji katarakte implantacijom toričnih IOL-a.

Bolesnici i metode:

Retrospektivna studija je provedena na 7 očiju u 5 bolesnika koji su podvrgnuti fakoemulzifikaciji s ugradnjom torične IOL. Srednja dob bolesnika bila je $61 \pm 7,3$ god. te su praćeni tijekom šestomjesečnog razdoblja. Izlazna mjerena uključivala su: pre- i postoperativni rožnični i manifestni (refrakcijski) astigmatizam, postoperativnu nekorigiranu vidnu oštrinu na daljinu (DUCVA), postoperativnu najbolje korigiranu vidnu oštrinu na daljinu (DBCVA) i stabilnost osi IOL.

Rezultati:

Razlika između preoperativnog i postoperativnog rožničnog astigmatizma bila je statistički beznačajna ($p = 0,735$). Postoperativni refrakcijski (manifestni) astigmatizam bio je značajno manji nego preoperativni ($p < 0,001$). Nekorigirana vidna oštrina na daljinu je bila 0,6 ili bolja u 100% bolesnika što je veliki napredak u odnosu na preoperativne vrijednosti DUCVA ($p < 0,00001$). Najbolje korigirana vidna oštrina na daljinu (DBCVA) je bila 0,7 ili bolja u 86% (6 očiju) bolesnika i 0,6 u 14% (1 oko) bolesnika (statistički značajno poboljšanje u usporedbi s preoperativnim vrijednostima DBCVA, $p < 0,00001$). Rotacija IOL u svim očima bila je unutar 10 stupnjeva.

Zaključak:

Implantacija toričnih IOL se nakon šestomjesečnog praćenja bolesnika pokazala kao učinkovita, sigurna i stabilna metoda u korekciji astigmatizma nakon kirurgije katarakte. Prednost ove metode u odnosu na druge (periferna kornealna relaksirajuća incizija ili excimer laser ablacija) je u postizanju najbolje korekcije vida bez kompromitiranja integriteta rožnice. Precizna keratometrija, odabir bolesnika te pažljivo poravnavanje osi cilindra su glavni čimbenici na koje treba обратити pozornost da bi se postigli najbolji rezultati.

English

Title: Visual quality outcome of toric intraocular lens implantation following phacoemulsification

Authors: Igor Knežović, Rajka Kasalica-Žužul, Jasmina Salopek Rabatić, Mirna Belovari Visnjic

Institution: Department of ophthalmology, Clinical hospital Dubrava; Department of ophthalmology, General hospital Čakovec

Aim: To evaluate the refractive outcome and stability of toric intraocular lens (IOL) implantation following cataract surgery for correction of pre-existing corneal astigmatism.

Patients and methods:

This retrospective study included 7 eyes of 5 patients who underwent implantation of toric IOL following phacoemulsification. The mean age of all patients was $61 \pm 7,3$ years with 6 months follow-up.

Investigated parameters were: pre-and post-operative corneal and manifest (refractive) astigmatism, postoperative distance uncorrected visual acuity (DUCVA), postoperative distance best corrected visual acuity (DBCVA) and IOL axis stability.

Results:

Difference between pre-and post-operative corneal astigmatism was statistically irrelevant ($p = 0.735$). Postoperative refractive (manifest) astigmatism was significantly lower than preoperative ($p < 0.0001$). The DUCVA was 0,6 or better in 100 % of patients, which was a great improvement over preoperative DUCVA values ($p < 0.00001$). The DBCVA was 0,7 or better in 86 % (6 eyes), and 0,6 in 14 % (1 eye) of patients (difference between preoperative DBCVA was statistically significant, $p < 0.00001$). The IOLs in all eyes rotated less than 10 degrees.

Conclusion:

After a short-time follow-up, toric IOL implantation turned out to be an effective, safe, and stable method of correcting corneal astigmatism

following cataract surgery. The advantage of this method compared to others (periferal corneal relaxing incisions or excimer laser ablations) is in achieving the best visual correction without compromising the corneal integrity. Accurate keratometry, patient selection and precise alignment of the cylindrical axes are main factors to be considered for a superior outcome.

Naslov: Debljina rožnice u raznim oblicima glaukoma

Autori: Jelena Farkaš, Zvjezdana Alpeza Dunato, Maja Novak

Stroligo, Ines Donadić Manestar, Marijana Bilen Babić

Ustanova: KBC Rijeka, Ghetaldus Zagreb

Cilj: Usporedba debljine rožnice u raznim oblicima glaukoma u odnosu na zdrave oči.

Bolesnici i metode:

Studija procjenjuje debljinu rožnice dobivenu spekularnim mikroskopom u 5 grupa pacijenata: 30 pacijenata s glaukomom otvorenog kuta, 30 pacijenata s glaukomom zatvorenog kuta, 30 pacijenata s pseudoeksfolijativnim glaukomom, 25 pacijenata s kongenitalnim glaukomom te u 50 pacijenata osoba bez glaukoma-kontrolna skupina.

Rezultati:

Debljina rožnice je bila statistički značajno tanja u pacijenata s glaukomom negoli u zdravih osoba.

Zaključak:

Debljina rožnice je izuzetno važan parametar kod raznih oblika glaukoma zbog razlika u visini intraokularnog tlaka

English

Title: Corneal thickness in different types of glaucoma in relation to healthy eyes

Authors: Jelena Farkaš, Zvjezdana Alpeza Dunato, Maja Novak Stroligo, Ines Donadić Manestar, Marijana Bilen Babić

Institution: University Hospital of Rijeka, Ghetaldus Zagreb

Aim: To evaluate central corneal thickness in different types of glaucoma in relation to healthy eyes

Patients and methods:

An study assessed corneal thickness using a specular microscope in the following 5 groups of patients: 30 patients with open-angle glaucoma, 30 patients with pseudoexfoliation glaucoma, 30 patients with angle closure glaucoma, 25 patients with congenital glaucoma, and 50 patients without glaucoma (control group)

Results:

Central corneal thickness was significantly thinner in cases with glaucoma than in healthy eyes

Conclusion:

Corneal thickness is very important parameter in different types of glaucoma due to different level of intraocular pressure

Naslov: Prolazni gubitak vida kod bolesnice sa posteriornim reverzibilnim encefalopatijskim sindromom

Autori: Antonio Sesar, Anita Pušić Sesar, Ivan Ćavar, Kristina Kevilj, Ivana Soldo, Irena Sesar

Ustanova: Klinička bolnica Mostar

Cilj: Prikaz slučaja 35-godišnje bolesnice sa potpunim gubitkom vida na oba oka tijekom postpartalne eklampsije

Bolesnici i metode:

Prikazan je tijek bolesti 35-godišnje bolesnice, koja je nakon poroda carskim rezom razvila eklampsiju i potpuni gubitak vida na oba oka. Učinjena je detaljna oftalmološka, neurološka i radiološka obrada

Rezultati:

Oftalmološkim pregledom utvrđen je gubitak vida na razinu osjeta svjetla, uz uredan nalaz fundusa. Neurološkim pregledom je utvrđena periferna pareza nervus facialis desno. Radiološkim pregledom su utvrđene edematozne promjene u okcipito-parijetalnim dijelovima mozga

Zaključak:

Posteriorni reverzibilni encefalopatijski sindrom može biti uzrok akutnog gubitka vida i može predstavljati dijagnostički izazov za oftalmologa

English

Title: Transient loss of vision in a patient with posterior reversible encephalopathy syndrome

Authors: Antonio Sesar, Anita Pušić Sesar, Ivan Ćavar, Kristina Kevilj, Ivana Soldo, Irena Sesar

Institution: Clinical hospital Mostar

Aim: Case report of 35-year old patient with complete loss of vision in both eyes during the postpartum eclampsia

Patients and methods:

Case reports presents 35-year old patient, who developed eclampsia after giving birth by caesarean section, followed by complete loss of vision in both eyes. The patient underwent a detailed ophthalmological, neurological and radiological treatment

Results:

Ophthalmological examination showed a loss of vision to the level of sensation of light, with normal fundus findings. Neurological examination revealed a right-side peripheral facial nerve paresis. Radiographic analysis showed an edematous change in the occipito-parietal brain region

Conclusion:

Posterior reversible encephalopathy syndrome can be a cause of acute vision loss and may represent a diagnostic challenge for the ophthalmologist

Naslov: Transepitelna fotorefrakcijska keratektomija u ispravljanju kratkovidnosti i kratkovidnog astigmatizma
Autori: Lukenda A, Karaman Martinović Ž, Lukenda A
Ustanova: Očna poliklinika Opto Centar, Zagreb

Cilj: prikazati učinkovitost i sigurnost zahvata transepitelne fotorefrakcijske keratektomije (t-PRK) izvedene na 30 pacijenata u očnoj poliklinici Opto Centar.

Bolesnici i metode:

prikupljeni su retrospektivni podaci o 57 očiju s niskom, srednjom i visokom kratkovidnošću, sa ili bez astigmatizma, kod kojih je napravljen t-PRK zahvat u 2011. godini. Laserski tretmani izvedeni su površinskom t-PRK tehnikom bez dodira instrumenta s okom. Nakon tretmana je kod većine pacijenata sa srednjom i visokom kratkovidnošću lokalno apliciran 0.02% mitomicin C tijekom 10-25 sekundi. Pacijenti kojima je t-PRK učinjen kao terapijski zahvat za liječenje bolesti rožnice nisu uključeni u istraživanje.

Rezultati:

Analizirani su podaci o sigurnosti i učinkovitosti zahvata, poput vidne oštrine, komplikacija i postoperativnog trajanja simptoma povezanih s reepitelizacijom u razdoblju praćenja od 3 do 15 mjeseci.

Zaključak:

Transepitelni PRK je vrlo precizan i siguran postupak ispravljanja kratkovidnosti i kratkovidnog astigmatizma. Tijekom razdoblja praćenja nisu primjećene komplikacije koje bi utjecale na vidnu oštrinu nakon zahvata.

English

Title: Transepithelial photorefractive keratectomy for the correction of

myopia

Authors: Lukenda A, Karaman Martinović Ž, Lukenda A

Institution: Opto Centar Eye Center, Zagreb

Aim: To present the efficacy and safety of transepithelial photorefractive keratectomy (t-PRK) procedures performed on 30 patients in Opto Centar.

Patients and methods:

Fifty-seven eyes of 30 patients with low, moderate and high myopia with or without astigmatism who underwent t-PRK procedure in 2011. were reviewed. Surface ablation treatments were performed by T-PRK "no-touch" technique on the 400 Hz Allegretto Wave Eye-Q laser platform. The treatment was followed by the application of 0.02% mitomycin-C for 10-25 seconds in most patients with moderate to high myopia. Patients who underwent t-PRK as a therapeutic procedure for corneal disorders were not included in the study.

Results:

The safety and efficacy data, including visual outcomes, complications and duration of postoperative symptoms linked with reepithelization were analyzed. The range of follow-up was 3 – 15 months.

Conclusion:

Transepithelial PRK is highly accurate and safe procedure for the correction of myopia and myopic astigmatism. No complications influencing the final visual outcome during the follow-up period were noted.

Naslov: Specifičnost određivanja kontaktnih leća u kabinetu za kontaktne leće

Autori: Dr S. Miljak, Dr A. Jelovac-Gjeldum, Dr I. Marković

Ustanova: KLINIČKI BOLNIČKI CENTAR SPLIT Klinika za očne bolesti

Cilj: Istražiti zastupljenost indikacija u propisivanju različitih vrsta kontaktnih leća u bolničkim uvjetima.

Bolesnici i metode:

Napravili smo retrospektivnu studiju u koju smo uključili nove pacijente u razdoblju od siječnja 2011. do ožujka 2012.g. Rezultate smo usporedili s onima iz 1992.g. Koristili smo elektronske podatke i kartoteku našeg kabineta za kontaktne leće.

Rezultati:

Naše istraživanje još je u tijeku, te ćemo konačne rezultate iznijeti na kongresu. Ono što smo do sada uočili, uspoređujući ova dva razdoblja u radu našeg kabineta, je da se znatno povećao broj keratokonusa, te da značajan dio našeg djelovanja otpada na terapijske kontaktne leće, koje se prije dvadeset godina nisu propisivale.

Zaključak:

U bolničkim uvjetima susrećemo najzahtjevnije slučajeve za fitanje kontaktnih leća, a također imamo mogućnost biti u korak s suvremenim dostignućima u kontaktologiji i to primjeniti na našim pacijentima.

English

Title: The Particularities of Prescribing Contact Lenses in a Hospital Lens Department

Authors: Dr S.Miljak, Dr A. Jelovac-Gjeldum, Dr I. Marković

Institution: UNIVERSITY CLINIC CENTRE SPLIT Department of
Ophtalmology

Aim: To review the range of indications for prescribing contact lenses
and the types of contact lenses in use by the hospital lens department.

Patients and methods:

We performed the retrospective study of new patients of the Contact
lens department of our clinic between January 2011 and April 2012.
The results were compared to similar data from 1992 . We used the
hospital electronic and card-files records.

Results:

Our research is ongoing and we will carry out the study at the time of
the congress. What we can see is that we have significantly more cases
of patients being treated for keratoconus and a great variety of
therapeutic contact lenses that we did not prescribe 20 years ago at
all. Also there is an increase of prescribing soft contact lenses
nowadays.

Conclusion:

In the hospital contact lens department we have an opportunity to see
a diversity of most challenging cases like keratoconus, high
astigmatism, posttraumatic and post-keratoplastic patients who are
referred for fitting with different kinds of contact lenses..

Naslov: Utjecaj silikonskog ulja na debljinu živčanog sloja mrežnice nakon pars plana vitrektomije

Autori: Mia Zorić Geber, Goran Benčić, Renata Ivezković, Zoran Vatavuk

Ustanova: Klinika za očne bolesti

Cilj: Procijeniti utjecaj silikonskog ulja na debljinu peripapilarog živčanog sloja mrežnice metodom optičke koherentne tomografijom
Bolesnici i metode:

U studiju je uključeno 60 bolesnika s regmatogenom ablacijom mrežnice. Kod svih bolesnika učinjena je pars plana vitrektomija s privremenom tamponadom silikonskim uljem. Peripapilarna debljina živčanog sloja mrežnice mjerena je metodom optičke koherentne tomografije aparatom HD-OCT (Cirrus HD-OCT; Carl Zeiss Meditec, Inc., Dublin, CA.) 7, 30, 90 i 180 dan nakon operacije protokolom Optic Disc Cube 200x200. Bolesnici su bili podjeljeni u dvije podgrupe prema visini očnoga tlaka mjerенog na kontrolama. Prva subgrupa uključivala je bolesnike kod kojih na kontrolnim pregledima nije izmijeren povišen očni tlak (do 22mmHg), a druga subgrupa bolesnike kod kojih je izmijeren povišen očni tlak (> 22mmHg). Kontrolna skupina uključivala je drugo zdravo oko svakog bolesnika. Uspoređivana je prosječna debljina živčanog sloja mrežnice između operiranih i kontrolnih očiju, te između subgrupa, kako na svakoj kontroli tako i kroz vrijeme praćenja.

Rezultati:

Na svakoj kontroli izmjereno je statistički značajno zadebljanje živčanog sloja mrežnice operiranih očiju u odnosu na kontrolne oči ($\chi^2=12,20$, $p=0,007$). Razlika debljine živčanog sloja mrežnice između subgrupe s povišenim i ne povišenim očnim tlakom na kontrolama nije bila statistički značajna. Tijekom vremena praćenja povećanje zadebljanja u subgrupi s ne povišenim očnim tlakom bilo je statistički značajno ($\chi^2=12,14$, $p=0,007$), dok u grupi s povišenim

očnim tlakom povećanje zadebljanja nije bilo statistički značajno ($\chi^2=2,69$, $p=0,441$).

Zaključak:

Prisutnost silikonskog ulja povezano je sa zadebljanjem živčanog sloja mrežnice. Zadebljanje živčanog sloja mrežnice ovisi o duljini trajanja tamponade silikonskim uljem. Povišenje očnog tlaka značajan je faktor koji utječe na opseg zadebljanja kroz vrijeme trajanja tamponade silikonskim uljem.

English

Title: Effect of silicone oil on the retinal nerve fiber layer thickness in vitrectomized eyes

Authors: Mia Zorić Geber, Goran Benčić, Renata Ivezković, Zoran Vatavuk

Institution: Ophthalmology clinic, KBC\\

Aim: To evaluate the effect of silicone oil on peripapillary retinal nerve fiber layer thickness (RNFL) by using spectral domain optical coherence tomography (OCT) device.

Patients and methods:

Sixty patients with rhegmatogenous retinal detachment and proliferative vitreoretinopathy up to PVR stage C1 were prospectively enrolled in a study.

All patients were surgically treated with pars plana vitrectomy and temporary silicone oil tamponade. Peripapillary thickness of RNFL was measured with a HD-OCT (Cirrus HD-OCT; Carl Zeiss Meditec, Inc., Dublin, CA) at 7, 30, 90 and 180 day after surgery. Optic Disc Cube 200x200 protocol were used. Patients were divided into two subgroups. The first subgroup had no signs of elevated intraocular pressure while the second exhibited an elevated intraocular pressure (IOP > 22mmHg) during the follow up period. The fellow eye of each study patient served as a control. Average peripapillary RNFL thickness in silicone oil filled eyes compared to control eyes, comparison of peripapillary RNFL thickness between NORMAL IOP and RAISED IOP subgroup.

Results:

Significant thickening of RNFL was recorded at each follow up visit in study eyes compared to the fellow, unoperated eyes ($\chi^2=12,20$, $p=0,007$). No significant difference in average RNFL thickness was found between the NORMAL IOP subgroup and RAISED IOP subgroup at every visit. However, there was a statistically significant increase of

RNFL thickening in NORMAL IOP subgroup over the course of the study ($\chi^2=12,14$, $p=0,007$). The increase of RNFL thickening in the RAISED IOP subgroup was not statistically significant over the course of the study ($\chi^2=2,69$, $p=0,441$).

Conclusion:

Silicone oil is associated with RNFL thickening in vitrectomized eyes. The thickening of RNFL is dependent on duration of the silicone oil tamponade. The increase of intraocular pressure is a factor which has an effect on the extent of thickening of RNFL over time.

Naslov: Kompresivni šav s injekcijom autologne krvi u liječenju prekomjerne filtracije nakon trabekulektomije

Autori: Mia Zorić Geber, Zdravko Mandić

Ustanova: Klinika za očne bolesti KBC "Sestre milosrdnice", Zagreb

Cilj: Prikaz slučaja primjene kompresivnog šava s injekcijom autologne krvi u liječenju prekomjerne filtracije s hipotonom makulopatijom nakon trabekulektomije.

Bolesnici i metode:

Bolesnici staroj 33 godina učinjena je trabekulektomija. U postoperativnom tijeku kod bolesnice se razvila prekomjerena hiperfiltracija uz hipotoniju i hipotonu makulopatiju. Kod bolesnice se učini postavljanje kompresivnog šava uz injekciju autologne krvi 0.3 ml. Praćena je vidna oštrina i visina očnoga tlaka. Učinjena je fotodokumentacija na biomikroskopu, te optička koherentna tomografija stražnjeg pola.

Rezultati:

Na kontroli iza operacije zabilježeno je poboljšanje vidne oštirine i porast očnoga tlaka. Optičkom koherentnom tomografijom zabilježeno je izravnjanje makularnih nabora. Nakon zahvata komplikacija nije bilo.

Zaključak:

Kombinacija kompresivnog šava s injekcijom autologne krvi može biti učinkovita metoda u liječenju prekomjerne filtracije s hipotonom makulopatijom nakon trabekulektomije.

English

Title: Compression suture with autologous blood injection for the treatment of overfiltration after trabeculectomy

Authors: Mia Zorić Geber, Zdravko Mandić

Institution: Ophthalmology clinic, KBC "Sestre milosrdnice", Zagreb

Aim: To report use of bleb compression suture and autologous blood injection for the treatment of overfiltration with hypotony maculopathy after trabeculectomy.

Patients and methods:

A 33-year-old woman with excess filtration and hypotony maculopathy underwent bleb compression suture and autologous blood injection for management of overfiltration.

After compression suture was placed to reduced area of filtration 0.3 ml of autologous blood was injected subconjunctivally. The 0.3 ml of unclotted blood was injected to the created area.

Visual acuity and intraocular pressure were followed. Slit lamp photographs of the bleb and optical coherence tomography of the posterior pole were performed.

Results:

At the postoperative visit after surgery improvement of visual acuity and elevation of intraocular pressure was detected. Optical coherence tomography revealed leveling of macular folds. Postoperative complications not recorded.

Conclusion:

Combination of compression suture placement and autologous blood injection may be effective in the management of overfiltration with hypotony maculopathy after trabeculectomy.

Naslov: Prednja orbitotomija u liječenju retrakcije vjeđa u sklopu tireotoksicne orbitopatijom
Autori: R.Ivekovic, E.T.Reiner, M.Belovari, Z.Mandic
Ustanova: KBC \ "Sestre milosrdnice\"

Cilj: Cilj našeg rada bio je prikazati učinak prednje orbitotomije pune debljine u liječenju retrakcije vjeđa kao poosljedice tireotoksične orbitopatije

Bolesnici i metode:

Rezultati:

Zaključak:

English

Title: Full thickness anterior blepharotomy in lid retraction associated with Graves orbitopathy

Authors: R.Ivekovic, E.T.Reiner, M.Belovari, Z.Mandic

Institution: KBC\ "Sestre milosrdnice\"

Aim: To report on a technique for upper eyelid retraction associated with Graves orbitopathy.

Patients and methods:

Results:

Conclusion:

Naslov: ONKOCITOM KARUNKULE**Autori: Jakovljević Vid, Kuzmanović Elabjer Biljana, Miletić****Daliborka, Bosnar Damir, Bušić Mladen****Ustanova: Klinika za očne bolesti**

Cilj: Prikazati slučaj onkocitoma karunkule.

Bolesnici i metode:

81-godišnja pacijentica

Rezultati:

81-godišnja pacijentica se javlja na našu Kliniku zbog bezbolne, sporo rastuće tvorbe u unutarnjem kutu lijevog oka. Biomikroskopskim pregledom se nađe djelomično cistična, pigmentirana, smeđe-crvena tvorba, promjera oko 7 mm, bez zahvaćanja suznog sustava i okolnih struktura. Tumor je kirurški odstranjen. Dijagnoza onkocitoma potvrđena je histopatološki.

Zaključak:

Onkocitom je rijedak u periokularnom području, a najčešće zahvaća karunkulu. Javlja se u starijih žena. Često se zamjeni za hemangiom, cistu ili nevus. Iako se radi o benignom tumoru, nakon nepotpune kirurške eksicizije moguća je maligna transformacija u adenokarcinom.

English

Title: ONCOCYTOMA OF THE CARUNCLE - CASE REPORT

Authors: Jakovljević Vid, Kuzmanović Elabjer Biljana, Miletić Daliborka, Bosnar Damir, Bušić Mladen

Institution: University Eye Clinic, University Hospital \\

Aim: To present a case of oncocytoma of the caruncle.

Patients and methods:

An 81-year-old woman

Results:

An 81-year-old woman presented with painless, slow growing mass in inner corner of her left eye. Clinically, partly cystic, pigmented, red-brown mass approximately 7 mm in diametar, was observed on the left caruncle. There was no involvement of the lacrimal system or other adjacent structures. The tumor was surgically removed. Histopathologic analysis confirmed the diagnosis of oncocytoma.

Conclusion:

Oncocytoma is uncommon in periocular area, arising mostly in caruncle. Elderly women are usually affected where it is often mistaken for hemangioma, cyst or nevus. Although it is characterized as benign tumor, after incomplete excision it can take an aggressive course as adenocarcinoma.

Naslov: Obostrani vidni poremećaj nakon ne oftalmološke operacije

Autori: Pehar H, Sesar A, Vojčić M, Mandić Z

Ustanova: Klinika za Očne bolesti, KBC Sestre Milosrdnice

Cilj: Prikaz slučaja obostranog vidnog poremećaja nakon ne oftalmološke operacije

Bolesnici i metode:

Šezdeset osamogodišnji muškarac koji je doživio bilateralni vidni poremećaj nakon neurokirurške operacije u općoj endotrahealnoj anesteziji. Učinili smo kompletan oftalmološki pregled uključujući pregled fundusa, vidno polje, fundusnu angiografiju, optičku koherentnu tomografiju papila i makula, višeslojnu kompjuteriziranu tomografiju, magnetnu rezonancu.

Rezultati:

Pronašli smo obostrano pad vidne oštrine, edem papila, papilarno i peripapilarno krvarenje i zadebljanje sloja retinalnih živčanih niti (RNFL).

Zaključak:

Produžena ne oftalmološka operacija, perioperativna hipotenzija, položaj prema dole, kranijalna hipertenzija, anemija, odmakla životna dob, hipertenzija, pušenje mogu dovesti do postoperativnog vidnog poremećaja, ček do gubitka vida.

English

Title: Bilateral visual disturbances after nonophthalmic surgery

Authors: Pehar H, Sesar A, Vojčić M, Mandić Z

Institution: KB Sestre Milosrdnice

Aim: To report a case of bilateral visual disturbances after

nonophthalmic surgery

Patients and methods:

A 68 years old man who experienced visual disturbances after neuro surgery in endotracheal anesthesia. We performed complete ophthalmic examination including fundus examination, visual field, optical coherence tomography of papilla and macula, fundus angiography, multislice computed tomography and Magnetic resonance imaging

Results:

We have find bilateral decreased visual acuity, papilar oedema et papilar hemorrhage, vitreous hemorrhage, visual field defects and increased retinal nervus fiber layer(RNFL) thickness

Conclusion:

Prolonged nonophthalmic surgery, perioperative hypotension, prone position, cranial hypertension, anemia, advanced age, hypertension, smoking can lead to postoperative visual disturbance even visual loss.

Naslov: Čimbenici rizika za razvoj refraktivne greške u četverogodišnje djece

Autori: dr.sc. Jurica Predović dr.med., doc. dr. sc. Mladen Bušić dr.med., Mirjana Bjeloš Rončević dr.med., dr.sc. Ivan Čima dr.med.

Ustanova: Klinika za očne bolesti, Klinička bolnica „Sveti Duh“, Zagreb, Medicinski fakultet Osijek, Sveučilište Josipa Juraja Strossmayera u Osijeku

Cilj: Odrediti rizične čimbenike za razvoj refraktivne greške u četverogodišnje djece.

Bolesnici i metode:

Prospektivna studija je provedena u sklopu projekta „Ambliopija u četverogodišnje djece Grada Zagreba“ na 2697 djece u dobi između 4 i 4,5 godina koja pohađaju vrtiće u Gradu Zagrebu. Ispunjavan je upitnik o postojanju rizičnih čimbenika za razvoj ambliopije. Testirana je monokularna vidna oštrina na blizinu (40 cm) i daljinu (3 m) Lea tablicama. Upitnik je sadržavao pitanja o terminu poroda djeteta, porođajnoj masi, bolestima/poremećajima oka u obitelji i u djeteta, teškim kroničnim bolestima djeteta, lijekovima koje dijete uzima, pušenju te teškim ili genskim bolestima u obitelji djeteta. Djeci čija je vidna oštrina na blizinu ili daljinu bila manja od 0,8 učinjen je kompletan oftalmološki pregled uz objektivno određivanje refraktivne greške metodom skijaskopije. Kratkvidnost je definirana kao refraktivna greška sa sfernom komponentom (SC) ≥ -1.00 dioptrija (D), dalekovidnost sa SC $\geq +2.50$ D te astigmatizam s ≥ 1.00 D cilindra u slučaju kosog astigmatizma, odnosno ≥ 1.50 D cilindra u slučaju pravilnog i nepravilnog astigmatizma. Anizometropija je definirana kao razlika SC između očiju ≥ 1.00 D u dalekovidnih, ≥ 2.00 D u kratkovidnih te ≥ 1.50 D cilindra kod astigmatskih očiju.

Studentovim t testom određivane su razlike u rizičnim čimbenicima za razvoj ambliopije navedenih u upitniku između skupine djece kod kojih je nađena (n=51), odnosno nije (n=2646) nađena refraktivna greška.

Rezultati:

U djece kojima je utvrđena refraktivna greška nađeno je statistički značajno više refraktivnih grešaka u obitelji, pridruženih ostalih bolesti oka i kroničnih bolesti u odnosu na kontrolnu skupinu.

Zaključak:

U ovom radu prikazani su prvi rezultati prospektivne studije „Ambliopija u četverogodišnje djece Grada Zagreba“ o čimbenicima rizika za razvoj refraktivne greške. Postojanje refraktivne greške u članova obitelji i kronične bolesti djeteta rizičan su čimbenik za postojanje refraktivne greške u četverogodišnjeg djeteta.

English

Title: The risk factors for development of refractive error in four-year-old kids

Authors: Jurica Predović MD, PhD, Assoc. Prof. Mladen Bušić MD, PhD, Mirjana Bjeloš Rončević MD, Ivan Čima MD, PhD

Institution: University Eye Clinic, University Hospital „Sveti Duh“, Zagreb, School of Medicine Osijek, University of Josip Juraj Strossmayer Osijek

Aim: Determination of risk factors for the development os refractive error in four-year-old kids.

Patients and methods:

This study was conducted on 2697 kindergarten kids from Zagreb, aged 4 to 4,5 years, as a part of prospective research project „Amblyopia in the four-year-old children in the City of Zagreb“. Initial testing consisted of an ophthalmology examination and a questionnaire about risk factors for developing amblyopia. A questionnaire included questions of gestation length, birth weight, kid and his family eye diseases/anomalies, chronic diseases, medication usage, smoking and chronic/genetic family diseases. Examination included monocular vision testing with Lea chart at near (40 cm) and distance (3 m). The criterion for referral to complete ophthalmological examination was visual acuity (VA) $< 0,8$. Post-cycloplegic refraction was measured, and myopia was defined as spherical component (SC) ≥ -1.00 diopters (D), hyperopia was defined as SC $\geq +2.50$ D and astigmatism was defined as cylinder ≥ 1.00 D in case of oblique astigmatism or cylinder ≥ 1.50 in case of with-the-rule or against-the-rule astigmatism. Anisometropia was defined as difference in SC between 2 eyes ≥ 1.00 D in case of hyperopia, ≥ 2.00 D in case of myopia or difference in cylinder between 2 eyes ≥ 1.50 D in case of

astigmatism. Student t test was used to determine differences in groups of kids with (n=51) and without (n=2646) refractive error regarding risk factors for developing amblyopia.

Results:

Compared to control group, there were statistically significantly more refractive errors among children with other eye anomalies, chronic diseases and whose family members have refractive error.

Conclusion:

This is the first report from the project „Amblyopia in the four-year-old children in the City of Zagreb”. Chronic disease and family member with refractive error are risk factors for having a refractive error among four-year-old kids.