

## INTERCAMBIO ACADÉMICO

### Arquivos Brasileiros de Oftalmologia Vol 67 - N 6 - 2004

CASTELLANO, Alessandra Guerra Daros, BARDAL, Anne Margrith Canto, LAGO, Cristiano *et al.* **Amniotic membrane transplantation for bullous keratopathy.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.855-858. ISSN 0004-2749.

**PURPOSE:** Assessing the effects of the amniotic membrane transplantation regarding pain relief and improvement of the recurrent epithelial side effects in patients with symptomatic bullous keratopathy and poor vision. **METHODS:** A prospective survey was conducted with 9 patients, from April/2000 to December/2001 at the «Hospital Universitário Evangélico de Curitiba - HUEC». Before the surgery, the medical records of each patient were studied and a complete ocular examination was performed. The patients were evaluated once a week or more frequently, including the first postoperative (PO), seventh PO, fourteenth PO and thirtieth PO day. A monthly evaluation was performed at the sixth month after the operation. **RESULTS:** The group consisted of 3 (33.3%) males and 6 (66.6%) females, with age from 29 to 74 years. All patients complained of pain in their eyes, 7 (77.7%) had teary eyes, 8 (88.8%) patients had photophobia and 4 (44.4%) had red eyes. The visual acuity in the preoperative was finger counting in 6 (66.6%) of the patients, hand moving in 2 (22.2%) of the patients and amaurosis in 1 (11.1%) patient. After the procedure, there was a reepithelialization in all patients between the twelfth and the twenty-first postoperative day. The patients seemed to recover from pain and photophobia in the first week after the amniotic membrane transplantation and remained well until the end of follow-up. **CONCLUSION:** The amniotic membrane has the potential to restore corneal surface in patients with symptomatic bullous keratopathy, reducing very quickly pain in these patients. However, the number of studied patients is small, but this treatment is an alternative that has encouraged us, as well as other researchers, due to the excellent obtained result.

**Keywords:** Amnion [transplantation]; Epithelium [corneal]; Epithelium [physiopathology]; Corneal diseases; Biological dressings; Ophthalmologic surgical procedures; Pain; Visual acuity.

FERRACINA, Carla, RODRIGUES, Adriana Maria, BELFORT, Ricardo *et al.* **Psychological aspects of children with developmental glaucoma.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.859-862. ISSN 0004-2749.

**PURPOSE:** To evaluate the following psychological aspects of children with developmental glaucoma: immaturity, anxiety, dependence and sociability. **METHODS:** Fifteen children with developmental glaucoma from the Congenital Glaucoma

department and fifteen children without any visual problem were evaluated through the projective technique of free drawing. **RESULTS:** In the group of children with glaucoma, 66.6% were immature, 86.6% were anxious, 73.3% were dependent and 80% had difficulties in sociability. In the control group, 46.6% were immature, 40% were anxious, 40% were dependent and 33.3% had difficulties in sociability. **CONCLUSION:** Children with glaucoma were considered more immature, more anxious, more dependent and less sociable than children without any visual problem.

**Keywords:** Glaucoma [psychology]; Child psychology; Child behavior; Child; Case-control studies.

PASSOS JUNIOR, Walberto, SCHELLINI, Silvana Artioli and PADOVANI, Carlos Roberto. **Lester-Jones tube: indications and results.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.863-866. ISSN 0004-2749.

**PURPOSE:** To evaluate the results and the complications occurring with this procedure. **METHODS:** The authors retrospectively reviewed charts of 25 patients (27 lacrimal viers) with upper lacrimal system obstruction who underwent conjunctivorhinostomy and Lester-Jones tube bypass. The patients were evaluated according to gender, causative factors and the complications during and after surgery. The data were submitted to statistical analysis. **RESULTS:** The Lester-Jones bypass tube was used in both sexes and most frequently in patients under 10 or above 50 years. The most common obstructive factor was unknown and congenital agenesis. Eighty-eight per cent of the patients had no epiphora at the end of the treatment. Complications occurred in 59.25% of the patients, most of them related to tube extrusion (40.74%) or migration (14.8%). The authors concluded that the Lester-Jones bypass tube is a good option to treat the upper lacrimal obstruction, in spite of the observed complications.

**Keywords:** Lacrimal duct obstruction; Nasolacrimal duct [surgery]; Dacryocystorhinostomy [methods]; Lacrimal apparatus [pathology]; Postoperative complications.

MAESTRINI, Heloisa Andrade, FERNANDES, Luciene Chaves and OLIVEIRA, Ana Cláudia Monteiro. **Retinal dystrophies in childhood: retrospective analysis.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.867-876. ISSN 0004-2749.

**PURPOSE:** To describe the clinical features and the results of diagnostic methods in all patients with diagnosis of one of the following retinal dystrophies: Leber congenital amaurosis (LCA), achromatopsia, cone dystrophy or cone-rod dystrophy, examined at the Low Vision Department of the Federal University of Minas Gerais, in the period of 1992 to 2003. **METHODS:** Retrospective analysis of charts of 40 patients. Ten had LCA, 17 had achromatopsia, 6 had cone dystrophy and 7 had cone-rod dystrophy. **RESULTS:** Visual

acuity was extremely low in patients with LCA, ranging from 20/710 to light perception. The mean value for achromatopsia was 20/200, 20/280 for cone dystrophy and 20/260 for cone-rod dystrophy. High hyperopia was the most common refractive error in LCA patients. Hyperopia was more frequent in cases of achromatopsia and cone dystrophy, while in cone-rod dystrophy myopia predominated. Fundoscopy was altered in most cases of LCA, cone dystrophy and rod-cone dystrophy, and normal in most cases of achromatopsia. Oculodigital sign and enophthalmos were found only in LCA patients while photophobia and color vision defects prevailed in other groups. Nystagmus and strabismus were frequent findings in all groups. There was a high incidence of delayed neuro-psycho-motor development in LCA patients. Two of them had also associated genetic syndromes. Patients presented symptoms very early in life in LCA and achromatopsia, while in cone and cone-rod dystrophies symptoms appeared later, but never after the age of 10. Consanguinity and positive familial history were strongly associated in all groups. The ERG was extinct in LCA, showed reduced photopic response in achromatopsia and diffuse reduction in cone-rod dystrophy. Color vision tests were altered mainly in achromatopsia and in cone dystrophy. **CONCLUSIONS:** Retinal dystrophies in childhood are a heterogeneous group of diseases with unspecific symptoms. A careful analysis of clinical features and diagnostic tests, specially color vision tests, ERG and visual field may be useful in their diagnosis.

**Keywords:** Vision [low]; Photoreceptors [vertebrate]; Color vision defects; Cones(Retina) [abnormalities]; Retinitis pigmentosa.

CAMARGO, Gustavo Bueno de, NISHIWAKI-DANTAS, Maria Cristina, BARROS, Jeison de Nadai *et al.* **Impression cytology in vernal conjunctivitis.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.877-881. ISSN 0004-2749.

**PURPOSE:** To study conjunctival surface changes caused by chronic inflammation in vernal keratoconjunctivitis using impression cytology. **METHODS:** Samples of conjunctival epithelium were collected from 30 patients with vernal keratoconjunctivitis and 30 patients without ocular diseases that were used as a control group. Each sample was collected from the superior bulbar conjunctiva using filter paper with 0.45µm pores. The material was then fixed and dyed with PAS, HE, and modified Papanicolaou. The tissue was examined with an optical microscope evaluating the following parameters: polymorphonuclear cells, intercellular junctions, mucin, goblet cells, and nuclear/cytoplasm (N/C) ratios. Thereafter, each sample was graded using the Nelson classification. **RESULTS:** Samples from patients with vernal keratoconjunctivitis presented larger amounts of polymorphonuclear cells, smaller amounts of mucin, and more alterations in the nuclear/cytoplasm ratios than in the control group. The amount of goblet cells did not vary. The Nelson classification showed a general inflammatory involvement of the conjunctiva in vernal keratoconjunctivitis. **CONCLUSION:** Impression cytology was able to evaluate and characterize the degree of inflammatory involvement of the conjunctiva in vernal keratoconjunctivitis.

**Keywords:** Conjunctiva [cytology]; Conjunctivitis [allergic]; Cytological techniques.

HOFLING-LIMA, Ana Luisa, BELFORT JR, Rubens, MOELLER, Cecília Tobias Aguiar *et al.* **In vitro antibiotic susceptibilities of ocular bacteria isolates from the cornea and conjunctiva to moxifloxacin, gatifloxacin and other fluoroquinolones.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.883-886. ISSN 0004-2749.

**PURPOSE:** To assess and compare the *in vitro* susceptibility of ocular bacterial isolates to fluoroquinolones, including moxifloxacin and gatifloxacin. **METHODS:** A total of 154 bacterial ocular isolates from keratitis and conjunctivitis were tested for sensitivity to the studied antibiotics, using the disk diffusion method. **RESULTS:** Of the 51 corneal isolates, 46 (90.2%) were sensitive to ciprofloxacin, 45 (88.2%) to ofloxacin and 41 (80.4%) to lomefloxacin. All corneal isolates were sensitive to moxifloxacin and gatifloxacin. Of the 103 bacterial conjunctival isolates, 101 (98.1%) and 103 (100%) were sensitive to gatifloxacin and moxifloxacin, respectively. Two strains of *Streptococcus* sp *viridans* group were resistant to gatifloxacin. A total of 82 (79.6%) specimens were sensitive to lomefloxacin, 89 (86.4%) and 96 (93.2%) to ciprofloxacin and ofloxacin, respectively. **CONCLUSION:** Fourth generation fluoroquinolones, herein exemplified by moxifloxacin and gatifloxacin, seem to be more effective than previous generation fluoroquinolones against frequently encountered organisms isolated from patients with bacterial keratitis and conjunctivitis.

**Keywords:** Quinolones; Drug resistance; microbial; Eye infections [bacterial]; Microbial sensitivity tests; Cornea [microbiology]; Conjunctiva [microbiology].

OLIVEIRA, Filipe de, MUCCIOLI, Cristina, LOPES, Yara Cristina *et al.* **Optical and ultrasound biometry: comparison between the two methods used for the calculation of accommodative intraocular lens.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.887-891. ISSN 0004-2749.

**PURPOSE:** To compare reproducibility, level of agreement and correlation of two ultrasonic biometers and one optical biometer for the calculation of accommodative intraocular lens. **METHODS:** Cataract patients were submitted to the examination with 3 different biometers (IOLMaster, Axis II and Humphrey Mod. 820) before the implant of the C&C Vision AT-45 accommodative silicone intraocular lens. The Axis II biometer was used for both contact and immersion biometry. Axial length, anterior chamber depth and keratometry were the analyzed biometric parameters. **RESULTS:** Thirty-four patients from 53 to 90 years old (mean 70.6 y) were submitted to the examination with the three different biometers. The lowest mean axial length (23.12 mm) was obtained with the Axis II/contact and the highest (23.21 mm) with the Humphrey biometer. The lowest mean anterior chamber depth (2.97mm) was obtained with the Humphrey and the highest (3.10mm) with the IOLMaster. Reproducibility for axial length was high for all the biometers tested (coefficient of variation: 3.02% for Humphrey and Axis II / immersion; 3.07 % for Axis II/contact and 3.19% for IOLMaster). All biometers presented nearly equal results of the analyzed parameters (99.01% for axial length and 94.77% for anterior chamber depth). Pearson's coefficient showed a high correlation between the biometers, regarding the axial length and anterior chamber depth measurements. **CONCLUSION:** The devices used in this study showed excellent reproducibility and high level of

agreement and of the axial length, anterior chamber depth and keratometry measurements, making it possible to reduce errors of intraocular lens calculation and visual dissatisfaction after cataract surgery.

**Keywords:** Biometry; Interferometry; Lens [intraocular]; Lens [Crystalline]; Lens [ultrasonography]; Cataract; Reproducibility of results.

PINHEIRO, Renato Klingelfus, MANDIA, Carmo, BETINJANE, Alberto *et al.* **Internal revision of Simmons: first analysis of his clinical results.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.893-896. ISSN 0004-2749.

**PURPOSE:** To determine the efficacy and the rate of complications of this procedure. **METHODS:** In a prospective study we selected 11 patients with uncontrolled glaucoma, with open angle glaucoma. The success rate was decrease of the intraocular pressure by 30% of the pre-surgical pressure.

**RESULTS:** The pressure dropped from  $24 \pm 7$  to  $12.6 \pm 3.7$ , and we decreased the number of eye drops from  $2.2 \pm 1.0$  to  $0.5 \pm 0.5$  ( $p < 0.005$ ). **DISCUSSION:** Needling can be an alternative for glaucoma surgery failure, but the success rate of this procedure should improve in the long-term. The Simmons revision showed a significant change of pressure that was sustained for the period of this study. 64% of the patients reached pressure below 14 mmHg. **CONCLUSION:** The Simmons revision is safe and effective to recover non-functional blebs.

**Keywords:** Trabeculectomy; Glaucoma; Intraocular pressure; Mitomycin [therapeutic use]; Ocular hypotension.

RUTHES, Ana Cristina de Carvalho, WAHAB, Sâmia, WAHAB, Najua *et al.* **Conjunctivitis presumably due to *Acanthamoeba*.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.897-900. ISSN 0004-2749.

**PURPOSE:** To describe four cases of conjunctivitis presumably due to *Acanthamoeba* considering diagnosis, signs, symptoms and treatment. **METHODS:** We reviewed the medical records of all patients who presented a clinical diagnosis of *Acanthamoeba* conjunctivitis between September/1998 to January/2001 at the «Hospital de Olhos do Paraná (HOP)». All eyes were submitted to a protocol of investigation that included ophthalmologic examination, microscopic examination and culture exams of conjunctival smears for adequate treatment. **RESULTS:** The laboratorial results of conjunctival smears revealed contamination with *Acanthamoeba* by direct examination and thereafter, confirmed by culture. The authors observed cysts and trophozoites of *Acanthamoeba*. **CONCLUSION:** This is the first report of conjunctivitis presumably due to according to *Acanthamoeba* the reviewed literature. Selected patients refractory to clinical treatment should undergo laboratorial screening to identify the etiologic agent and adequate treatment.

**Keywords:** Conjunctivitis [diagnosis]; Conjunctivitis [therapy]; *Acanthamoeba*.

VIEIRA, Edécio, LIMA, Vinícius dos Santos Watzl Costa, AZEVEDO, Mírian da Silva *et al.* **Use of argon laser in corneal suture removal.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.901-904. ISSN 0004-2749.

**PURPOSE:** To describe the technique of clear-cornea suture

removal, that avoids the contact of the external part of the thread with the intraocular medium, and to evaluate whether this procedure would prevent infections. **METHODS:** A retrospective study of 1.233 cases of clear-cornea monoylon 10.0 suture removal, by the use of an argon laser to cut the thread, was performed. Incidence of infection was then assessed. **RESULTS:** In 1.071 eyes, one shot was enough to cut the stitch. In 162 eyes, the laser shot hit the epithelial part of the suture, making new shots necessary to cut the intrastromal part, and thus to remove it assuring that the outer part of the stitch would not come in to contact with the interior of the cornea. There were no complications after suture removal. **CONCLUSIONS:** The technique has shown to be effective in suture removal. And, possibly, presents a lower risk for infection, since the external part of the thread does not come in to contact with the innermost parts of the cornea, or with the anterior chamber. No cases of infection have been observed during this research.

**Keywords:** Suture; Cornea [surgery]; Lasers [adverse effects]; Phacoemulsification; Retrospective study.

ESTACIA, Paulo, SANTOS JR., Arnaldo Rodrigues and GENARI, Selma Candelária. **Assessment of the possible toxic effect of a semifluorinated alkane on Vero cell culture.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.905-910. ISSN 0004-2749.

**PURPOSE:** Perfluorocarbon liquids (PFCLs) are used in vitreoretinal surgery. PFCLs may cause inflammatory reactions, cellular injury and destruction of the normal retinal architecture. In order to avoid these effects, semifluorinated alkanes (SFA) were developed. We assessed the potential use of an SFA known as perfluorohexilactano ( $F_6H_8$ ) as long-term vitreous replacement under controlled cell culture conditions. **METHODS:** We analyzed indirect cytotoxicity, where the cells only come into contact with soluble elements that can be eliminated by perfluorohexilactano. We therefore analyzed direct toxicity (contact toxicity) of perfluorohexilactano by means of scanning electronic microscopy and immunocytochemistry reagents for actin. Cells embedded in a treatment-free culture medium were used as control, a positive control for toxicity with an undeniably toxic effect on cells, and a weight control that produced a mechanical compression similar to the amount of perfluorohexilactano used in the experiment. **RESULTS:** The indirect cytotoxicity test showed that  $F_6H_8$  did not affect cell growth. Our direct toxicity tests showed that cellular alterations caused by perfluorohexilactano were similar to those produced by the weight control and different from toxicity control. **CONCLUSION:** Perfluorohexilactano does not present indirect toxicity and this product has a compressive rather than a toxic effect on cultured cells.

**Keywords:** Fluorocarbons [toxicity]; Cell culture; Ophthalmologic surgical procedures.

PEREIRA, Ricardo Antonio, SANTOS, Regina C.R. dos and SANTOS, Procópio Miguel dos. **Bacterial anterior chamber contamination after phacoemulsification and polymethylmethacrylate or silicone intraocular lens implantation.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.911-915. ISSN 0004-2749.

**PURPOSE:** To evaluate bacterial anterior chamber contamination following uncomplicated phacoemulsification with different sizes of incisions. **METHODS:** Prospective randomized study, 80 eyes, 80 patients divided into two groups, were submitted to phacoemulsification with topical anaesthesia. In group A, with 40 patients, surgery was performed with 3.0 mm incision and silicone intraocular lens implant with injector. In group B the surgery was done with 5.8 mm incision and polymethylmethacrylate intraocular lens implant with forceps. Anterior chamber aspirate was taken for culture upon completion of surgery in each case. **RESULTS:** Anterior chamber cultures were positive in 2.5% of the cases in group A, and 5.0% in group B (chi-square test = 0.380,  $p > 0.05$ ), frequencies of contamination were not significantly different. **CONCLUSION:** Intraocular lens implant through a smaller incision did not decrease anterior chamber contamination in phacoemulsification.

**Keywords:** Cataract extraction; Phacoemulsification; Lens implantation, intraocular; Anterior chamber [microbiology]; Polymethylmethacrylate; Eye infections, bacterial.

JUNG, Liang Shih, CIOLA, Fabiano Bojkian, CONCEICAO, Raquel Dilguerian de Oliveira *et al.* **Ocular changes due to systemic alpha-interferon therapy for hepatitis C.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.917-920. ISSN 0004-2749.

**PURPOSE:** To describe ocular (specially fundoscopic) changes due to systemic alpha-interferon (IFN) therapy in patients with hepatitis C. This is a prospective, descriptive and observational (non-interventional) study, and its results are preliminary. **METHODS:** Patients were selected with indication of alpha-interferon therapy for hepatitis C. They underwent ocular examinations before therapy and 1, 3, 6 and 12 months after starting the therapy. HIV patients and those who had a history of previous treatment with alpha-interferon were excluded from the study, but examined. **RESULTS:** Fifty-one patients were selected from November 1999 to June 2000. The male-to-female ratio was 1.55. The age average was 47 years. The best corrected visual acuity ranged from 20/15 to 20/40. Most of the symptomatic patients complained of foreign body sensation in the eyes, which became more tolerable with time. Complaints comprised flu-like symptoms, joint pain, depression, headache, and general weakness. Ocular findings related to alpha-interferon were: cotton wool spots (3 eyes) and intraretinal hemorrhage (1 eye). One patient died during the study, due to another disease not related to hepatitis, and one patient refused to be examined. **CONCLUSIONS:** There are retinal vascular changes due to systemic alpha-interferon for hepatitis C. There are no studies in our country describing ocular changes in patients with hepatitis C on therapy with alpha-interferon. General physicians and specially gastroenterologists should pay special attention to this problem, and refer these patients to the ophthalmologist in order to determine and follow any lesion that may be related to the use of this drug.

**Keywords:** Hepatitis C [drug therapy]; Interferon-alpha [therapeutic use]; Retina diseases [etiology].

OLIVEIRA, Márcia Lima Santos, DI GIOVANNI, Maria Elizabeth, PORFIRIO NETO JR, Francisco *et al.* **Congenital**

**cataract: diagnostic, clinic and surgical features in patients submitted to lensectomy.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.921-926. ISSN 0004-2749.

**PURPOSE:** To analyze the clinical and therapeutic profiles of children with congenital cataract submitted to lensectomy. **METHODS:** Retrospective study of 89 eyes of 62 children who underwent surgery at the Congenital Cataract Sector - Department of Ophthalmology - Federal University of São Paulo, Brazil. **RESULTS:** Among the 62 children, 30.64% showed infectious causes, 19.36% genetic causes and 50% idiopathic causes. Strabismus was found in 54.83% of the patients and 27.42% had systemic diseases. Concerning pregnancy conditions, 22.58% of the mothers had no adequate prenatal care. Consanguinity was observed in 17.74% of the cases and congenital cataracts in 6 (9.68%) relatives. The diagnostic suspicion was of the mothers in 72.58% of children. Leukocoria was the main feature. The suspicion age varied from immediately after birth to 15 months (mean = 1.34 months). Age on diagnosis in the department varied from 8 days to 20 months (mean = 5.84 months). Secondary opacification in the visual axis was the most frequent postoperative complication; it occurred in 19.11% of 89 eyes. It was observed that 45.16% of the patients had difficulties in following postoperative treatment. They did not use eyeglasses, eye drops or correct eye patching for amblyopia. **CONCLUSION:** Rubeola is still one of the most important causes of congenital cataract in our country. This condition shows the necessity of better prevention. The first diagnostic suspicion is mainly by the mothers and within the three first months of age in most children, but there is a considerable delay between suspicion and the patient's presence in a specialized service center. Despite satisfactory surgery results, delay of surgery and difficulties in postoperative treatment impair final visual results.

**Keywords:** Cataract [congenital]; Cataract [diagnosis]; Cataract extraction [methods]; Amblyopia; Ophthalmologic surgical procedures; Retrospectives studies.

ARAÚJO, Maria Emília Xavier dos Santos and SCARPI, Marinho Jorge. **Bacterial microbiota of the conjunctiva of donor corneas.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.927-933. ISSN 0004-2749.

**PURPOSE:** To identify and qualify bacterial organisms in conjunctival tissue of donor corneas. To correlate the frequency of positive cultures with donor age, cause of death, and time from death to collection of conjunctival samples. To investigate bacterial susceptibility to specific antibiotics. **METHODS:** Conjunctival samples obtained from the inferior conjunctival fornix of 242 eyes of cornea donors were collected between January and March, 1994. The samples were transferred to Stuart's medium and then inoculated into blood, acid blood, chocolate, McConkey agars, and thioglycolate broth. Donor age, time and cause of death were recorded. Bacterial susceptibility to antibiotics was tested using the diffusion method on agar modified by Kirby and Bauer. Statistical analysis was done using the chi-square, Fisher's exact and Mann-Whitney tests. **RESULTS:** Microorganisms were identified in 91.7% of the samples. The most frequently isolated microorganism was coagulase-negative *Staphylococcus* (27.3%). Time from death to

collection of the conjunctival sample was on the average 4.2 hours. The most frequent cause of death was cardiovascular disease (26.4%). The median donor age was 62 years. No significant correlation between positive cultures and the investigated variables was found. Vancomycin inhibited bacterial growth in 100% of Gram-positive microorganisms. The sensitivity of Gram-negative bacteria to gentamicin ranged from 36.7 to 92.3%. **CONCLUSION:** The frequency of positive conjunctival cultures of donor corneas was 91.7%. No significant statistical difference was found between positive cultures and the investigated parameters. Vancomycin inhibited the growth of Gram-positive bacteria in 100% of the cases and the sensitivity of Gram-negative bacteria to gentamicin varied. **Keywords:** Cornea transplantation; Cornea [microbiology]; Bacteria [isolation & purification]; Tissue donors; Conjunctiva [microbiology]; Eye infections; bacterial.

LIPENER, César and LEAL, Fernando. **Scleral contact lenses: first experience in the Contact Lens Sector of the Universidade Federal de São Paulo/Escola Paulista de Medicina.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.935-938. ISSN 0004-2749.

**PURPOSE:** To describe initial experiences with patients wearing rigid scleral contact lenses. **METHODS:** Retrospective study of 13 eyes of 7 patients, 11 fitted with polymethylmethacrylate and two with rigid gas-permeable scleral contact lenses. Age, sex, diagnosis, initial and final visual acuity (VA), time of daily wear, complications and follow-up were recorded. **RESULTS:** Keratoconus was diagnosed in 6 patients, one was submitted to radial keratotomy. Mean follow-up lasted 8 months. Visual acuity of all eyes improves with scleral contact lenses. **CONCLUSION:** Visual acuity improvement observed in corneal ectasia and after radial keratotomy, in patients awaiting corneal graft, suggests that scleral contact lenses can be considered clinical treatment alternative.

**Keywords:** Contact lenses; Sclera; Visual acuity; Vision disorders; Corneal diseases; Keratoconus; Equipment design.

MALTA, João Baptista Nigro Santiago, BERNAL, Henry Cantor, RAMALHO, Antônio Murillo *et al.* **Orbital apex syndrome and herpes zoster ophthalmicus in an HIV positive patient: case report.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.939-941. ISSN 0004-2749.

To present a rare case of orbital apex syndrome associated with herpes zoster ophthalmicus of unfavorable prognosis in an HIV positive patient, who arrived at the Emergency Room with the following clinical history: left facial crust lesions, low visual acuity, ocular pain, low corneal sensitivity and complete ophthalmoplegia of the left eye. The orbital apex syndrome is a rare disorder which is characterized by ptosis, proptosis, internal and external ophthalmoplegia (involvement of the second, third, fourth and sixth cranial nerves), damage to the first division of the trigeminal (ophthalmic nerve), and varied degrees of visual acuity loss. The treatment of herpes zoster ophthalmicus is based on the use of systemic antiviral drugs and the prognosis will depend on ocular damage.

**Keywords:** Ophthalmoplegia; Blepharoptosis; Exophthalmos; herpes zoster ophthalmicus; Syndrome; Corneal ulcer; Case report [Publication type].

DIAS, Vanderson Glerian, AGUNI, Joran Seiko and BEZZON, Ana Karina Teixeira. **Lyell syndrome due to imipramine: case report.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.943-945. ISSN 0004-2749.

The purpose is to describe a case of a 43-year-old patient with Lyell syndrome due to imipramine and to show the corneal alterations and dermatological lesions typical for Lyell syndrome that healed after imipramine discontinuation and adequate treatment. The ophthalmologist must be able to recognize, treat and adequately follow Lyell syndrome cases.

**Keywords:** Toxic epidermal necrolysis [chemically induced]; Stevens-Johnson syndrome; Imipramine [adverse effects]; Case report.

AKAISHI, Leonardo, VAZ, Rodrigo, CURY, Virgínia Delacroix *et al.* **Piggyback foldable intraocular lens implant in patient with congenital cataract in the first year of life: case report.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.947-951. ISSN 0004-2749.

The authors report a case of congenital cataract, which was treated with piggyback foldable intraocular lens implant, not described in the Brazilian literature. The differences and similarities are analyzed with other reported cases in the literature.

**Keywords:** Cataract [congenital]; Cataract extraction; Intraocular lens; Lens implantation, intraocular; Visual acuity; Case report.

GODOY, Glaucio de, FINAMOR, Luciana Peixoto, ANDRADE, Rafael *et al.* **Intravitreal triamcinolone in retinal vasculitis: case report.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.953-956. ISSN 0004-2749.

The authors present a case of a patient with the diagnosis of primary retinal vasculitis treated with intravitreal injection of triamcinolone, which determined improvement of inflammation and visual acuity. An improvement of iris and optic nerve head neovascularization was also observed, however, a macular traction developed after the injection, which determined a decrease in visual acuity. The authors also discuss the effects of triamcinolone on inflammation as well as the side effects observed in this patient.

**Keywords:** Triamcinolone [therapeutic use]; Triamcinolone [adverse effects]; Retinal vasculitis [drug therapy]; Intralesional injections; Uveitis; Case report.

VIANNA, Raul N. G., AL-KHARUSI, Nadia and DESCHENES, Jean. **The successful use of mycophenolate mofetil in a patient with active birdshot chorio-retinopathy refractory to azathioprine therapy: case report.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.957-959. ISSN 0004-2749.

Report on the effect of oral mycophenolate mofetil (MMF) on the treatment of a patient with active birdshot chorioretinopathy (BC) refractory to azathioprine (AZA) therapy. A sixty-two-year-old female patient with BC developed cystoid macular edema (CME) and severe retinal vasculitis in both eyes. AZA (2 mg/kg/day) was then initially prescribed in order to control the inflammatory process. As AZA failed to control the intraocular inflammation after one year, it was replaced by MMF (2 mg/kg/day), which controlled the inflammatory process and improved the patient's visual acuity. In three years under MMF, no recurrence was observed and her vision remained unchanged. In our patient

with active BC refractory to AZA, MMF was effective to decrease the intraocular inflammation, as well as to improve the patient's visual acuity.

**Keywords:** Mycophenolic acid [therapeutic use]; Chorioretinitis [drug therapy]; Choroid diseases [drug therapy]; Retinal vasculitis; Azathioprine [therapeutic use]; Case report.

FONTES, Bruno Machado, CHEN, Jane, PRINCIPE, André Hasler *et al.* **Wolfram syndrome: case report.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.961-964. ISSN 0004-2749.

Wolfram syndrome consists of the association of diabetes mellitus with optic atrophy. Other common findings are deafness, urinary tract and neurological disorders. It is an autosomic recessive disease, with incomplete penetrance and variable expressivity. The aim of this case report is to describe a patient who presents all the characteristics of Wolfram syndrome (DIDMOAD syndrome). JFP, African - American, 23 years old, presents with diabetes mellitus and insipidus, optic atrophy, deafness, peripheral polyneuropathy, autonomic neuropathy, neurogenic bladder, urinary tract dilation with recurrent infections, and azoospermia. Clinical examination, retinography, fluorescein angiogram, eletroretinography (ERG) and visual evoked potencial (VEP) revealed no retinal disorders and bilateral optic atrophy. Wolfram syndrome must be remembered in cases of optic atrophy in association with diabetes, urinary disorders, or any of the described alterations.

**Keywords:** Wolfram Syndrome; Optic atrophy; Diabetes mellitus; Diabetes insipidus; Deafness.

RECH, Gustavo Valandro, PROCHNAU, John, ROSA, Rosângela Rosa da *et al.* **Visual alterations due to Rathke's cleft cyst: case report.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.965-968. ISSN 0004-2749.

Rathke's cleft cysts are parasellar lesions, which are usually asymptomatic and found in 12 to 33% of autopsies done on patients with normal pituitary gland. Occasionally, the cysts can swell up to the point of putting pressure on the suprasellar and intrasellar structures, which provoke the symptoms. Clinically, the patients complain about blurred vision and they also present hemianopsia deficiency. M.A.S.R., 47 years old, female, white, born in Pelotas/RS, complained about progressive vision reduction in the right eye for 2 months. During the examination, loss of vision and bitemporal hemianopsia were discovered. Computerized tomography highlighted a rounded hypodense image with clear borders, in sellar topography, determining remodeling and enlarging of the sella turcica. Magnetic resonance showed expansive cystic injury located in the sella turcica with suprasellar growth. The mentioned injury presented obliteration in the suprasellar cistern and an important compression on the optic chiasm. The surgical approach confirmed the presence of

extensive cystic injury compressing the optic chiasm, and the anatomicopathological examination of the material diagnosed Rathke's cleft cyst. The ophthalmic examination three months after the surgery showed improvement in visual accuracy and total recovery of defects of the visual field. Rathke's cleft cyst must be included in the differential diagnosis of parasellar tumors which may cause compression of optical pathway, and the importance of the diagnosis and immediate treatment with the purpose of avoiding structural damages with irreversible losses of visual function, as well as endocrine disorders are emphasized.

**Keywords:** Hemianopsia; Visual field; Cysts; Sella turcica [surgery]; Pituitary diseases; Tissue cultures; Magnetic resonance imaging.

AKAISHI, Patricia Mitiko Santello, KITAGAWA, Valéria Mariano, CHAHUD, Fernando *et al.* **Malignant melanoma in anophthalmic socket post-evisceration: case reports and literature review.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.969-972. ISSN 0004-2749.

We report 2 cases of malignant melanoma in anophthalmic sockets of patients who had undergone eviscerations 30 and 60 years ago. The histopathologic analysis showed that the tumors were adherent to scleral remnants. The implications of these cases were discussed in the context of the indications of evisceration and enucleation.

**Keywords:** Melanoma [surgery]; Uveal neoplasms [surgery]; Orbit evisceration; Anophthalmos; Adult; Case report; Review [Publication type].

OLIVEIRA, Leonardo Bruno, JORGE, Rodrigo, COSTA, Rogério Alves *et al.* **Pharmacological vitreolysis and posterior vitreous detachment.** *Arq. Bras. Oftalmol.*, Nov./Dec. 2004, vol.67, no.6, p.973-976. ISSN 0004-2749.

The vitreous plays an important role in the pathogenesis of several vitreoretinal diseases. The physiological molecular and structural modifications of the vitreous gel lead to liquefaction and posterior vitreous detachment, which positively influence the vision of patients with diabetic retinopathy, maculopathies and vasculopathies. This review article will approach the concept of pharmacological vitreolysis that refers to the use of different agents, which modify the molecular vitreous organization, in order to reduce or eliminate its role in the genesis of several vitreoretinal diseases, having a posterior vitreous detachment as its final goal. In the last decade, several agents have been extensively studied but there are some limitations in their clinical applicability. We will discuss such agents and their effects on different sites of the vitreoretinal extracellular matrix and vitreoretinal interface.

**Keywords:** Vitrectomy; Vitreous detachment; Vitreous body [drug effects]; Extracellular matrix; Retinal diseases [drug therapy].