Abstracts

Edited By Dr. Qasim Lateef Chaudhry

Treatment of coats' disease with intravitreal bevacizumab

Ray R, David E Barañano, G Baker Hubbard
Br J Ophthalmo. 2013; 97: 272–7.

Robin et al compared the efficacy of intravitreal bevacizumab plus ablative therapy with ablative therapy alone for Coats' disease in this retrospective review of all paediatric patients who received treatment for Coats' disease from a single surgeon (GBH) from 1st January 2001 to 31st March 2010. Ten consecutive patients who received intravitreal bevacizumab as part of their treatment were matched to 10 patients treated with ablative therapy alone by macular appearance, quadrants of subretinal fluid, and quadrants of telangiectasias. Outcomes evaluated were number of treatment sessions, time to full treatment, and resolution of disease. The results showed that there was no statistical difference between baseline characteristics when comparing the bevacizumab and control groups. Eyes treated with bevacizumab required more treatments over a longer time period compared to the control group. All patients in the bevacizumab group were successfully treated while two of the patients in the control group failed ablative techniques. So the authors concluded that Intravitreal bevacizumab may play a role as adjuvant therapy in selected cases of Coats' disease, but its use does not reduce the time to full treatment.

Resolution of disease was seen in the most severe cases treated with bevacizumab plus thermal ablation whereas their matched controls failed therapy with laser and cryotherapy alone.

Lesions simulating retinoblastoma (pseudoretino-blastoma) in 604 cases results based on age at presentation

Shields CL, Schoenberg E, Kocher K, Shukla SY, Kaliki S, Shields JA
Ophthalmology. 2013; 120: 311-6.

This retrospective case series study was conducted by Carol et al to determine the types and frequency of ocular conditions which simulate as retinoblastoma (pseudoretinoblastoma) based on age at presentation. The chart of two thousand seven hundred seventy-five patients referred for the management of retinoblastoma were reviewed by the authors and conditions simulating retinoblastoma were noted. Of 2775 patients referred, 2171 patients (78%) had confirmed retinoblastoma and 604 patients (22%) had simulating lesions (pseudoretinoblastomas). In the pseudoretinoblastoma cohort, the mean patient age at presentation was 4 years (median, 2 years). There were 27 different pseudoretinoblastoma conditions and the 10 most common included Coats' disease (n _ 244; 40%), persistent fetal vasculature (PFV; n _ 158; 28%), vitreous haemorrhage (n _ 27; 5%), ocular toxocariasis (n _ 22; 4%), familial exudative vitreoretinopathy (FEVR; n _ 18; 3%), rhegmatogenous retinal detachment (n _ 18; 3%), coloboma (n _ 17; 3%), astrocytic hamartoma (n _ 15; 2%), combined hamartoma of retina and retinal pigment epithelium (n _ 15; 2%), and endogenous endophthalmitis (n _ 10; 2%). Simulating lesions differed based on age at presentation, and children younger than 1 year were most likely to have PFV (49%), Coats' disease (20%), or vitreous hemorrhage (7%); those 2 to 5 years of age were most likely to have Coats' disease (61%), toxocariasis (8%), or PFV (7%); and those older than 5 years were most likely to have Coats' disease (57%), toxocariasis (8%), or FEVR (6%).

In conclusion the most common pseudoretino-blastomas included Coats' disease, PFV, and vitreous hemorrhage, but the spectrum varies depending on patient age.

Long-term rejection incidence and reversibility after penetrating and lamellar keratoplasty

Guilbert E, Bullet J, Sandali O, Basli E, Laroche L, Borderie VM
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This institutional retrospective cohort study by Emmanuel et al was done to identify risk factors for corneal graft rejection and rejection irreversibility. A total of 1438 consecutive eyes of 1438 patients who underwent corneal transplantation for optical indication at the Centre Hospitalier National

d'Ophtalmologie des XV-XX, Paris, France, between December 1992 and December 2010 were studied. Surgical technique was penetrating keratoplasty (PK) in 1209 cases, anterior lamellar keratoplasty (ALK) in 165 cases, and Descemet stripping with endothelial keratoplasty in 64 cases. Cumulative incidence of rejection episodes and rejection irreversibility rate of 299 cases were noted of which 145 (48.5%) were irreversible after treatment. In multivariate analysis, the cumulative incidence of rejection episodes were influenced by recipient age (P [.00002), recipient rejection risk (P [.0003), lens status (P [.00003), and surgical group (P [.035). A higher incidence of rejection episodes were observed in young patients (< 20 years) and patients aged from 41 to 50, high-risk recipients, aphakic eyes and eyes with anterior chamber intraocular lens, and eyes with PK (compared with eyes with ALK). Rejection episodes were more likely to be irreversible for high risk recipients (P [.02), for eyes with preoperative hypertony (P [.009), and for eyes with poor visual acuity at presentation (P [.002). They concluded that recipient rejection risk and surgical group are the main risk factors for rejection as they both influence the incidence of rejection and the reversibility rate. Recipient age and lens status are predictive factors for the occurrence of rejection. Preoperative hypertony is a predictive factor for rejection irreversibility.

The effect of an ahmed glaucoma valve implant on corneal endothelial cell density in children with glaucoma secondary to uveitis

Ayuso VK, Scheerlinck LM, Boer JD
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This institutional cross-sectional study was done to assess the effect of Ahmed glaucoma valve implants on corneal endothelial cell density (ECD) in children with uveitic glaucoma.

Eighty eyes from 42 patients diagnosed with uveitis before the age of 16 were included in this study. Twenty-eight eyes had an Ahmed glaucoma valve implant because of secondary glaucoma while fifty-two eyes without an implant served as controls. Corneal ECD was examined cross – sectionally using a noncontact specular microscope. Univariate and multivariate generalized estimating equations analyses with correction for paired eyes were performed. The main outcome measure was correlation of ECD with the presence of an Ahmed glaucoma valve implant and with the time following implantation. The study results revealed that ECD was significantly lower in the Ahmed glaucoma valve group than in controls (2359 and 3088 cells / mm^2, respectively; P < .001) following an average of 3.5 years after Ahmed glaucoma valve implantation. Presence of an Ahmed glaucoma valve implant, previous intraocular surgery, age, duration of uveitis, and history of corneal touch by the implant tube were all significantly associated with decreased ECD. Following a multivariate analysis, presence of an Ahmed glaucoma valve implant (B[L340; adjusted P < .011) and older age (B[L58; adjusted P [.005) remained independently associated with decreased ECD. Within the implant group, the age – adjusted time interval following Ahmed glaucoma valve implantation was highly correlated with decreased ECD (B [L558, P < .001). In conclusion the Ahmed glaucoma valve implants in children with uveitic glaucoma are independently associated with decreased ECD, and this effect is associated with the time interval following Ahmed glaucoma valve implantation.