Influence on Posterior Capsule Opacification and Visual Function of Intraocular Lens Optic Material

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It is well known that optic design of IOLs, specifically the optic edge, is related to prevention of posterior capsule opacification. In this study, the authors examined the influence of optic material on posterior capsule opacification (PCO) by comparing PCO and visual functions between eyes with an acrylic intraocular lens and those with a silicone IOL of same optic design and with same haptics.

In this randomized clinical trial 100 patients scheduled for phacoemulsification surgery underwent implantation of an acrylic IOL (AMO Sensar; AR40e) in one eye and implantation of a silicone IOL (ClariFlex) of the same optic design and loops in the fellow eye. Eighty nine patients remained for analysis. The PCO value was measured using the Scheimpflug videophotography system at 1st, 3rd, 6th, 12th, 18th, 24th, 30th, and 36th months postoperatively. The incidence of eyes that required a Nd:YAG laser capsulotomy was examined; visual acuity and contrast sensitivity with and without a glare source were also evaluated.

The results showed that the mean PCO value did not increase significantly during follow-up in either the acrylic or silicone IOL group. When comparing the groups, no statistically significant difference was found in the PCO or in the incidence of Nd:YAG capsulotomy, although both tended to be slightly better in the silicone group than in the acrylic group. There was also no significant difference between the groups in visual acuity or in photopic and mesopic contrast sensitivity with or without glare. This study concludes that when acrylic and silicone IOLs of same optic design and with same haptics were implanted, the optic material does not influence the development of PCO significantly to impair visual function.

The Role of Common Viral Ocular Pathogens in Thygesons Superficial Punctate Keratitis


The aetiology of Thygeson’s superficial punctate keratitis (TSPK) remains elusive. A viral aetiology has been suggested by the absence of bacterial infection and clinical resemblance to other viral keratopathies. Here the authors report the results of polymerase chain reaction analysis for the detection of herpes simplex virus (HSV) 1 and 2, herpes zoster virus, varicella zoster virus (VZV) and adenovirus from corneal epithelial samples from patients with active signs and symptoms of Thygesons Superficial Punctate Keratitis.
Schirmer strip impressions were taken from the epithelium of eight patients with a known history of TSPK and symptoms and signs of active disease. Three patients were recruited as positive controls (two with herpes simplex keratitis and one with herpes zoster ophthalmicus). Samples from a further three patients acted as negative controls. All 14 samples underwent polymerase chain reaction testing for HSV 1, HSV 2, VZV and adenovirus. DNA corresponding to the expected viral DNA was amplified from all three positive control samples. The three negative control samples showed no evidence of viral DNA. Similarly, all samples from patients with TSPK showed no evidence of the presence of HSV 1, HSV 2, VZV or adenovirus.

In this study, the Schirmer impression strips were placed in 0.5 ml of phosphate-buffered saline. This volume was chosen in order to avoid excessive dilution of the sample material. As each PCR assay requires at least 0.1 ml of Phosphate-buffered Saline, authors were limited in the number of viruses that they could test for. Authors chose HSV 1, HSV 2 and VZV as the issue of antiviral treatment has never been fully resolved. Trifluorothymidine has been reported as efficacious and this condition is frequently treated with topical acyclovir. Authors explain that they chose adenovirus as there have been occasional reports in the literature of adenoviral keratoconjunctivitis that has persisted over years with multiple remissions and exacerbations.

Safety of Triamcinolone Acetonide (TA) Assisted Pars Plana Vitrectomy in Macular Hole Surgery

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In this study the authors evaluate whether Triamcinolone acetonide (TA)-assisted pars plana vitrectomy for visualization of posterior hyaloid during macular hole surgery has any adverse effects on macular hole closure rate and intraocular pressure (IOP). This is a case series comparing outcomes and adverse effects in patients who had surgery for macular holes with ILM peel, with and without the use of TA-assisted vitrectomy.

During the study period, 29 patients had vitrectomy for macular holes. In 18 patients (group 1), Triamcinolone acetonide was used intra-operatively to facilitate visualization of the posterior hyaloid and in 11 patients (group 2) no Triamcinolone acetonide was used. There was no statistically significant difference in the macular hole closure rates and the improvement in visual acuity between the two groups. No long-term increase in IOP was recorded in any of the 29 patients. The total anatomical success rate in both groups was 85.6% and the average improvement in visual acuity in both groups was two Snellen lines.

So the authors conclude that, Triamcinolone acetonide is safe and there is no contraindication for its use as an intra-operative aid to facilitate vitreous visualization in macular hole surgery.

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