Abstracts

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Grid laser photocoagulation for macular edema due to branch retinal vein occlusion in the age of bevacizumab? Results of a prospective study with crossover design

Leitritz MA, Gelisken F, Ziemssen F, Szurman P, Bartz – Schmidt KU, Jaissle GB
Br J Ophthalmol. 2013; 97: 215–9.

Martin et al aimed to investigate the long term effectiveness of grid laser photocoagulation (GLP) versus intravitreal bevacizumab (BEV) in macular edema (MO) secondary to branch retinal vein occlusion (BRVO). In this prospective interventional consecutive case series, previously untreated eyes with perfused MO were enclosed over a period of 16 months for BEV and for 29 months for GLP. The follow-up period was 1 year. Patients with persistent MO after 12 months of BEV were offered GLP and vice versa, and were followed-up for another 12 months. Both BEV (23 eyes) and GLP (21 eyes) caused a significant ($p < 0.05$) reduction in central retinal thickness (CRT) at 12 months although this was delayed with GLP. However, BEV revealed a signify-cantly better best corrected visual acuity (BCVA) compared with GLP (0.2 vs 0.5 logMAR; $p < 0.04$). Switching therapy for non-responders revealed a reduced CRT at another 12 months, although this was not significant. So the authors concluded that functionally and anatomically, BEV appears to be more effective than GLP for the therapy of MO due to BRVO. BCVA is significantly better after1 year and the anatomical response of the MO is faster. Further more, non-responders with persistent MO despite BEV or GLP treatment might benefit from switching therapy.

Phacoemulsification versus Trabeculectomy in Medically Uncontrolled Chronic Angle – Closure Glaucoma without Cataract

Tham CCY, Kwong YYY, Baig N, Leung DYL, Li FCH, Lam DSC.
Ophthalmology 2013; 120: 62–7.

Clement et al compared phacoemulsification versus trabeculectomy with adjunctive mitomycin C in medically uncontrolled chronic angle – closure glaucoma (CACG) without cataract in this prospective, randomized clinical trial comprising of fifty medically uncontrolled CACG eyes without cataract of 50 patients. Patients were randomized into undergoing either phacoemulsification or trabeculectomy with adjunctive mitomycin C. After surgery, patients were followed up every 3 months for 2 years.

The main outcome measures noted were Intraocular pressure (IOP) and requirement for glaucoma drugs. Twenty-six CACG eyes were randomized to receive phacoemulsification, and 24 eyes underwent trabeculectomy with mitomycin C. Phacoemulsification and trabeculectomy resulted in significant and comparable IOP reduction at 24 months after surgery (reduction of 8.4 mmHg or 34% for phacoemulsification vs. 8.9mmHg or 36% for trabeculectomy; P 0.76). Over first 24 months, trabeculectomy treated eyes required on average 1.1 fewer drugs than phacoemulsification treated eyes (P 0.001). However, trabeculectomy was associated with significantly more surgical complications than phacoemulsification (46% vs. 4%; P 0.001). Eight (33%) of 24 trabeculectomy eyes demonstrated cataract during follow-up. The authors concluded that both phacoemulsification and trabeculectomy are effective in reducing IOP in medically uncontrolled CACG eyes without cataract. Although trabeculectomy is more effective than phacoemulsification in reducing dependence on glaucoma drugs it is associated with more complications.

Long – term visual acuity and the duration of macular detachment: findings from a prospective population-based study

Mitry D, Awan MA, Borooah S, Syrogiannis A, Lim-Fat C, Campbell H, Wright AF, Fleck BW, Charteris DG, Yorston D, Singh J.
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The authors report the long-term visual outcome of amulticenter prospectively recruited cohort of macula-off rhegmatogenous retinal detachments (RRD). The Scottish retinal detachment study was a prospectively recruited study that recruited all incident cases of primary RRD in Scotland over a 2-year period (2007 – 2009). All patients with a macula-off RRD fromfour participating sites were invited for clinical examina-

tion at 6 weeks, 3 months, 6 months and 1 year after the initial surgery. Using a join point model they estimated the effect of duration of macular detachment on final visual outcome.

In total, there were 291 patients with macula off RRD without pre-existing retinal disease who had successful repair after one operation. 65.9% achieved a final visual acuity (VA) of 0.48 log MAR (6/18). They identified two time points (day 8 (95% CI 3 to 15 days) and (day 21 (95% CI 6 to 26 days)) after which there was a statistically significant worsening in final VA. In conclusion the authors suggested that that the majority of patients with macula – off RRD successfully repaired with one operation will achieve a VA of 6/18 or better at final follow-up. After 8 days of macular detachment, the final visual outcome may be adversely affected and, thus, operative repair within this period is desirable. Duration of macular detachment of ≤ 8 days demonstrated a continuing improvement in VA for up to 1 year, a finding which was not found in macula detachments of longer duration.

Visual Outcomes and Safety of a Refractive Corneal Inlay for Presbyopia Using Femtosecond Laser

Limnopoulou AL, Bouzoukis DI, Kymionis GD, Panagopoulou SI, Pallikaris AI, Feingold V; Pallikaris IG
Journal of Refractive Surgery 2013; 29: 12-8.

Aliki et al conducted this study to evaluate the outcomes and safety of a refractive inlay (Flexivue Micro – Lens, Presbia Coöperatief U.A.) for the corneal compensation of presbyopia. This prospective, intervenetional clinical study comprised of 47 emmetropicpresbyopes with a mean age of 52 ± 4 years (range: 45 to 60 years). The inlay was inserted, centered on the line of sight, inside a corneal pocket created in the patient's non dominant eye, using a femtosecond laser. Follow-up was 12 months. Visual acuity, corneal topography, wave frontaberrometry, contrast sensitivity, structural corneal alterations, and questionnaires were evaluated. Twelve months after surgery, uncorrected near visual acuity was 20/32 or better in 75% of operated eyes, whereas mean uncorrected distance visual acuity (UDVA) of operated eyes was statistically significantly decreased from 0.06 ± 0.09 log MAR (20/20) (range: −0.08 to 0.26) preoperatively to 0.38 ± 0.15 log MAR (20/50) (range: 0.12 to 0.8) ($P < .001$), and mean binocular UDVA was not significantly altered ($P = .516$). Seventeen patients lost one line of corrected distance visual acuity in the operated eye. No patient lost 2 lines in CDVA in the operated eye. Overall, higher order aberrations increased and contrast sensitivity decreased in the operated eye. No tissue alterations were found using corneal confocal microscopy. No intra- or post-operative complications occurred. So the authors concluded that after twelve months post implantation, the Flexivue Micro-Lens intracorneal refractive inlay seems to be an effective method for the corneal compensation of presbyopia in emmetropicpresbyopes aged between 45 and 60 years old.