Fibrin glue versus sutures for attaching the conjunctival autograft in pterygium surgery: a prospective observer masked clinical trial

S Srinivasan, M Dollin, P McAllum, Y Berger, D S, BJO 2009; 93:215-218

Pterygium recurrence is the most common complication of pterygium surgery and is a frequent source of frustration for the patients and surgeons. Pterygium excision and leaving behind a bare sclera has a high recurrence rate (40-75%). Pterygium excision with conjunctival autograft has a lower recurrence rate (3-5%). The autograft can be attached using sutures or fibrin glue. Fibrin glue (eg. Tisseel) is a two component fibrin sealant which mimics natural fibrin. The aim of the study was to compare the degree of conjunctival autograft inflammation, subconjunctival hemorrhage (SCH) and graft stability following the use of sutures and fibrin glue during surgery.

The study was a prospective observer masked clinical trial. 40 eyes of 40 patients undergoing primary pterygium surgery with conjunctival autograft were allocated into two groups- Group I (n=20) had fibrin glue and Group II (n=20) had sutures to attach the autograft. Free conjunctival limbal based autograft from the supero-temporal quadrant with tenons removed was used. Limbus to limbus and stromal side down orientation were maintained in the procedure. Post operatively antibiotics, steroid eye drops and standardized digital slit lamp photograph were taken at 1 week, 1 month and 3 months. Sutures were masked using photo editing software. Two masked observers objectively graded the digital photographs for degree of inflammation, SCH and graft stability.

34 of the patients completed the study. In the fibrin glue group the degree of inflammation was much less at one month (p=0.019) and 3 months (p=0.001) with no difference at 1 week. The fibrin group showed more stability at week (p=0.258), 1 month (p=0.076) and 3 months (p=0.624). No difference in SCH was noted between the groups.

This is the first prospective clinical trial confirming that conjunctival autografts secured with fibrin glue in pterygium surgery are more stable and produce less inflammation than those secured with sutures.
Effect of Phacoemulsification on Intraocular Pressure in Eyes with Pseudoexfoliation- A Retrospective Study


Pseudoexfoliation syndrome is characterized by the accumulation of fibrillar extracellular material on the surface of various ocular tissues. It is the most common identifiable cause of open angle glaucoma, associated with cataract and high rates of complication in cataract surgery. The aim of this study was to assess the short term and long term effects of uneventful phacoemulsification with PCIOL implantation for visually significant cataract in large series of Pseudoexfoliation eyes with or without glaucoma in terms of BCVA, IOP and glaucoma medication requirements. They retrospectively analyzed 1122 eyes with PXF with uneventful surgery of which 882 eyes didn’t have glaucoma (PXF) group, and 240 had glaucoma (PXG) group.

On a comparative analysis of the outcome they found that the mean IOP was statistically significantly reduced through 7 yrs postoperatively compared with preoperatively in PXF group. The PXG group had reduced the mean IOP for 1 year and reduced glaucoma medication requirement at almost all postoperative time intervals. Higher the mean preoperative IOP, greater the reduction of mean postoperative IOP. IOP spikes (>30 mm of HG) 1 day postoperatively occurred in 4 % in PFX group and 17 % in PXG group. Postoperatively, 2.7 % of PXF eyes progressed to a need for lasers and/or glaucoma surgery.

In conclusion long term reduction in mean IOP occurred in PXF eyes with and without glaucoma. Glaucoma progression in both groups was low, suggesting a protective effect of phacoemulsification on IOP in these eyes.

Short Term Safety and Efficacy of Intravitreal Bevacizumab for Pseudophakic Cystoid Macular Edema- A Retrospective Case Series.

Antonio Barone, Vincenzo Russo, Francesco Prascina, Retina 29:33-37, 2009

Cystoid Macular Edema also known as Irvine–Gass syndrome, is still recognized as one of the most common causes of poor visual outcome following cataract surgery. Spontaneous resolution of the edema is the most likely natural course in this pathology. However up to 2 % of patients will not have spontaneous resolution of the edema and must be treated. Prompt treatment on recognition of the disorder is warranted, because if macular edema has been present for several months there is likely irreversible change in the macula.

In some cases the CME is refractory to medical treatment including topical corticosteroids, topical non steroidals and periocular steroid treatment.

In this study the authors from Foggia, Italy, sought to determine the feasibility, safety and clinical effect of
intravitreal Bevacizumab (Avastin) in patients with refractory cystoid macular edema after uncomplicated cataract surgery. 10 eyes of ten patients affected by pseudophakic cystoid macular edema refractory to medical treatment treated with at least one intravitreal injection of 1.25 mg of Bevacizumab were enrolled in the study. Follow up visits included Early Treatment Diabetic Retinopathy Study visual acuity testing, Optical Coherence Tomography imaging and ophthalmoscopic examination. The follow up was six months. All eyes had improved best corrected visual acuity and no eyes had worse visual acuity. The mean baseline best corrected visual acuity was 20/80 and the mean final best corrected visual acuity 20/32, the difference was statistically significant (p<0.0001). The mean central macular thickness at baseline (546.8mm; range, 359-720mm) decreased significantly (228.7, 190-280mm). No ocular or systemic adverse events were observed.

The authors conclude that intravitreal Bevacizumab is safe and well tolerated in patients with pseudophakic cystoid macular edema.

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