

Sir,
Combined subconjunctival and subscleral ologen implant insertion in trabeculectomy

This is to report a novel approach to trabeculectomy using ologen implant under the subscleral flap and subconjunctival area to prevent fibrosis and failure of surgery.

Case report

A 52-year-old male presented with complaint of gradual, progressive diminution in vision in both eyes for past 2 years with BCVA OD FCCF(PR accurate) and OS 20/60 (PR accurate), and open angles, right eye disc showed total glaucomatous cupping and left eye had near total cupping with IOP not controlled on maximal medical control. We performed right followed by left eye trabeculectomy with subscleral and subconjunctival ologen implant.

The surgical technique used was as follows: corneal traction suture with 8-0 vicryl, a fornix-based conjunctival flap with a 5 × 5 mm sclera flap (Figure 1a). Additional deep dissection was done in the sclera bed to create a small gutter to position the subscleral implant. A 3 × 1 mm rectangular sclerectomy was made using vannas scissors, followed by a peripheral iridectomy. The ologen implant (circular disc 6 mm diameter) was then cut into two semicircular pieces (two-third and one-third). The smaller piece was placed beneath the scleral flap created and the scleral flap was closed with one central 10-0 nylon suture (Figure 1b). Two releasable sutures were placed on the nasal and temporal side of the scleral flap. After tying the suture, the larger piece of collagen matrix was placed over the scleral flap (Figure 1c). No suture was required to secure the implant, and as soon as it touched the sclera, it absorbed aqueous and molded to the scleral tissue. Conjunctiva was closed with 8-0 vicryl sutures (Figure 1d).

Comment

The patient had controlled IOPs (between 8 and 12 mm Hg) and a well functioning diffuse bleb at 2, 4, 8, 12 weeks, and 6 months of follow-up post surgery BCVA OD FCCF and OS 20/100 PR accurate in both eyes. Anterior segment OCT and a UBM carried out at further follow ups showed the presence of implant both subsclerally and subconjunctivally.

By placing the implant subsclerally, an additional advantage of lesser subscleral fibrosis might be obtained with better control of IOP. The above method is thus different from the method of subconjunctival placement of ologen implant and conventional trabeculectomy, as it also prevents subscleral fibrosis and thus maintains a physiological channel for the aqueous to pass through.

Conflict of interest

The authors declare no conflict of interest.

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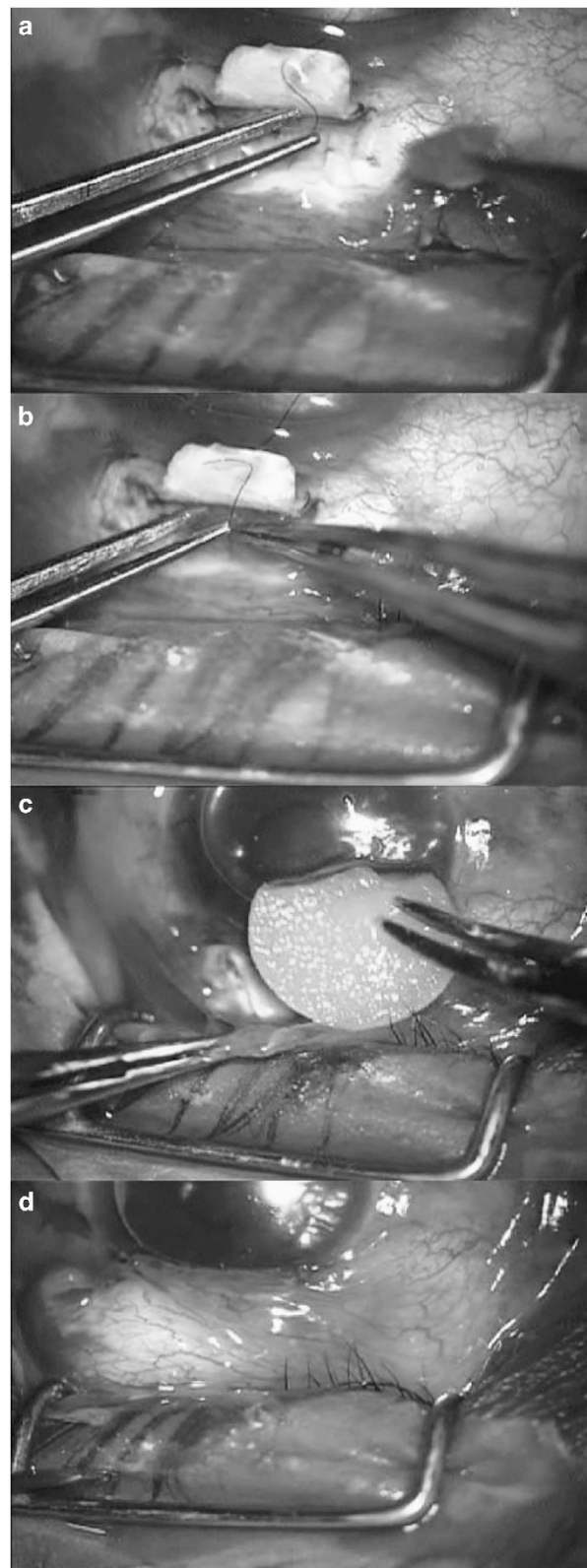


Figure 1 (a) Creation of scleral flap. (b) Subscleral placement of implant. (c) Subconjunctival placement of ologen implant. (d) Suturing of conjunctiva with 8-0 vicryl.