



Figure 1 (a) Initial superglue tarsorrhaphy after trimming of lashes to 3 mm. (b) Tetracaine gel was applied to both upper and lower lids. (c) This provided sufficient anaesthesia so that the lower eyelashes could be cut at their bases and the eyelids separated. (d) The patient at follow up, a month later, showing re-growth of the lashes.

and separating the eyelids has been recommended.^{1,4} Unfortunately this is poorly tolerated by children and often requires a general anaesthetic.^{1,4}

Topical skin anaesthetics such as tetracaine gel are widely used in paediatrics, and similar formulations such as lidocaine/prilocaine 5% (EMLA) have also been used safely in eyelid surgery.⁵ To our knowledge, this is the first report of this type of treatment for superglue tarsorrhaphy. This simple and well-tolerated anaesthetic technique has the potential for avoiding the need for a general anaesthetic if waiting for spontaneous opening is not considered appropriate.

Conflict of interest

The authors declare no conflict of interest.

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Eye (2012) **26**, 334–335; doi:10.1038/eye.2011.286;
published online 11 November 2011

Sir,
Why we get a blue stain

We wish to add our comments to the recent review article describing the use of trypan blue (TB) in anterior segment surgery.¹ To understand its potential uses, we need some knowledge of its biochemistry. TB ($C_{34}H_{23}N_6O_{14}S_4Na_4$) is a negatively charged, water soluble bis-axo dye that is used in cell biology to confirm cell viability. The selectively permeable cell membrane of viable cells does not allow this 'foreign' chemical to enter and hence appear colourless while the uptake in dead cells results in a blue discolouration. Similarly, TB will delineate collagen type IV-rich membranes. Both these properties are utilized in ophthalmology, the former in highlighting viable cells after conjunctival brush cytology, the latter in staining the anterior lens capsule (as well as ILM and ERM tissue).² Permanent discolouration is avoided by dilution with balanced salt solution. TB also stains poorly hydrated tissues better than well-hydrated ones explaining the contrast seen between the acellular lens capsule and the water-rich cells of the cortical lens.

Unmentioned risks include potential teratogenicity (has been associated with encephalocele formation in animal models) and carcinogenicity (lymphoma in the rat model); both models, however, used subcutaneous injections of TB. Similarly, ocular abnormalities have been described in the pregnant murine model.³ As a cautionary measure, the risk benefit ratio should be properly assessed before proceeding with TB-assisted ophthalmic surgery in pregnant or nursing women.

Conflict of interest

The authors declare no conflict of interest.

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Eye (2012) **26**, 335–336; doi:10.1038/eye.2011.287;
published online 11 November 2011

Sir, Complications due to bovine pericardium used to cover acrylic implants after enucleation and tubes of aqueous devices

Bovine pericardium has been described for wrapping of hydroxyapatite implants^{1–5} and Ahmed devices. Owing to a shortage of human scleral graft (HSG), we decided to switch to tutopatch for coverage of acrylic implants after enucleation and aqueous devices. Here, we report four patients that were operated on at Leiden University Medical Centre (December 2010–March 2011) with complications supposedly related to the use of tutopatch.

Case report

Two patients (49 and 54 years) with large choroidal melanoma and one patient (17 years) with CMV retinitis with leukemia were enucleated under general anesthesia, followed by insertion of an acrylic implant wrapped in bovine pericardium (tutopatch, Tutogen Medical GmbH, Neunkirchen am Brand, Germany) that was rinsed in saline for 3 min. After two days, the first two patients presented with excessive chemosis in and around the socket. MRI showed orbital cellulitis and *Staphylococcus*

aureus (different strains) were cultured. Unused tutopatch was cultured and showed no bacterial growth. After treatment with systemic antibiotics improvement was observed. After 1–3 weeks, the second and third patient developed extrusion of the implant with liquefied pericardium seeping from the wound. Wound dehiscence debridement was performed and a secondary implant was placed covered with HSG. The postoperative result was cosmetically acceptable.

The fourth patient (9 years) with secondary glaucoma due to uveitis received an Ahmed implant with pericardium covering the silicone tube. Four months after surgery the pericardium had reabsorbed leaving the tube uncovered. The tube was covered with HSG.

Comment

Since December 2010, we have experienced an unusual amount of postoperative problems after switching from HSG to tutopatch. Excessive chemosis with and without extrusion as well as rapid resorption was observed. Gupta² and Gayre^{1,4} found promising results and recommended bovine pericardium for wrapping of hydroxyapatite implants. A significantly higher incidence of exposure and inflammation in the early postoperative period using bovine pericardium have been reported.^{3,5} The underlying mechanism responsible for wound dehiscence is unclear, possibly caused by an inflammatory response.⁵ These serious complications need to be reported to alert other surgeons. The use of bovine pericardium to cover orbital implants should be handled with greatest caution until the exact cause of these postoperative complications has been clarified.

Conflict of interest

The authors declare no conflict of interest.

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Eye (2012) **26**, 336; doi:10.1038/eye.2011.294;
published online 11 November 2011