

Conflict of interest

The authors declare no conflict of interest.

References

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Sir,

The biological bandage contact lens: a novel technique for using the amniotic membrane in the treatment of persistent corneal epithelial defects

We read with interest the article entitled 'Amniotic membrane in ophthalmology: indications and limitations' by Rahman *et al.*,¹ in which the authors provide a comprehensive review of the use of amniotic membrane (AM) transplantation in ocular surface reconstruction.

In the article the authors describe a new method of using the AM, retaining it in the eye with a conformer.

We would like to describe an alternative method, which we have found to be very well tolerated by the patient.

Technique

The AM is obtained from Tissue Services, National Blood Services (Liverpool, UK, L24 8RB) as a 2 × 2 or 3 × 3 cm² sheet on nitrocellulose mounting paper in transport medium frozen at –40 °C. The AM is provided stromal side down and the overlap reflected onto the reverse of the paper.

The amnion is allowed to thaw and is rinsed according to the supplier's instructions. The mounting paper is taped flat onto a suitable surface (eg, a plastic kidney dish), having first peeled the AM from the corners to allow this (Figure 1a). A Flieringa ring, of an appropriate size to fit comfortably into the patient's fornices, is selected and placed on the uppermost, epithelial surface of the amnion. The peripheral amnion is lifted and placed at the centre of the ring. The amnion is then sutured in position with one running 7/0 Vicryl suture (Figure 1b).

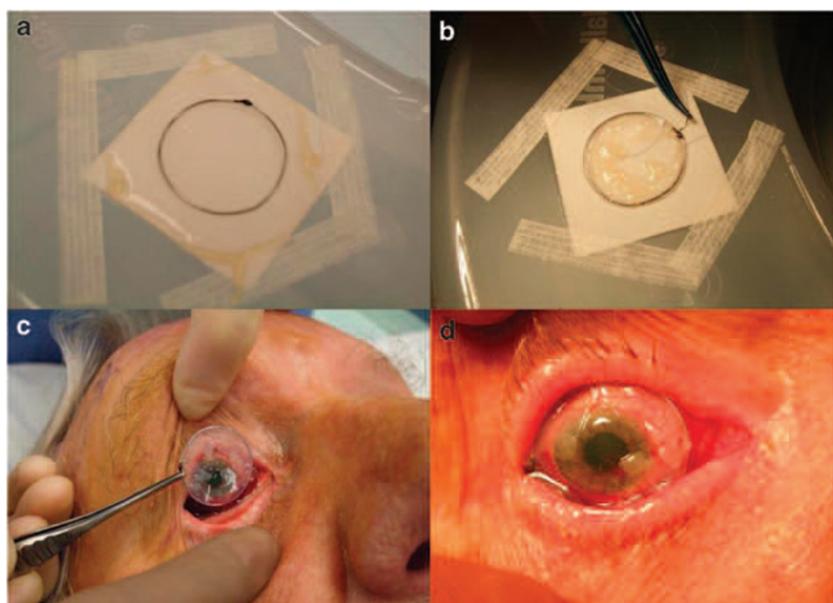


Figure 1 (a) The mounting paper is taped flat to a suitable surface using steristrips. A Flieringa ring (previously measured to fit comfortably in patient fornices with minimal mobility) placed on the AM's epithelial surface. (b) The amnion is sutured with one 7/0 Vicryl running suture around the ring. (c) The BBCL is easily placed upon the eye. (d) The eye with BBCL in is easy to examine, here showing tectonic penetrating keratoplasty with anterior chamber haemorrhage.

The amnion biological bandage contact lens (BBCL) is then placed on the patient's eye, stromal side down (Figure 1c).

Comment

The AM can be held on the eye by various methods: glue, suturing, or, as recently described, with a conformer.¹ We have found all these methods to have disadvantages. Sutures can cut out, cause haemorrhage, and irritate, and we have found conformers to be uncomfortable for the patient.

We believe the method described here has several advantages; it is cheap and can be easily performed, and is well tolerated by the patient. Examination of the eye is possible through the amnion (Figure 1d), and the BBCL can be removed and replaced whenever necessary with negligible trauma to the eye.

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Reference

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Sir,
Reply to Abu-Ain and Webber

Thank you for the opportunity to respond to the comments made by Drs MS Abu-Ain and SK Webber¹ in response to our paper related to amniotic membrane transplantation.²

Drs Abu-Ain and Webber have described a neat little trick to apply amniotic membrane to the ocular surface without actually having to suture it in place. This is a variation of the theme described by us in our paper, wherein we wrapped a conformer shell with amniotic membrane and placed it in the conjunctival sac. Clearly, there will be specific indications where this approach of wrapping the amniotic membrane around a Flieringa ring may help, for example, with a persistent corneal epithelial defect.

A Flieringa ring, however, is a scleral fixation ring and is not designed to extend deep into the conjunctival fornices, unlike a conformer shell. In contrast, the conformer benefits from being moulded to the shape of the eye and is a better fit than the ring. However, this is a minor difference and may bear no actual influence on the outcomes. In cases in which the palpebral and bulbar surfaces of the conjunctiva are denuded or inflamed, as after chemical burns or acute Stevens Johnson syndrome,

an amnion-covered conformer shell is more likely to keep the surfaces apart at the fornix compared with the Flieringa ring.

The authors claim 'several advantages' stating that their method is cheap, easily performed, well tolerated by the patient, examination of the eye is possible through the amnion, and can be removed and replaced whenever necessary with negligible trauma to the eye. All the above apply equally to the conformer shell, wherein the central hole also allows visualisation of the cornea. The patients for whom we used it tolerated it well. Conformer shells without amnion wrap have been used following buccal mucosal grafts to the conjunctiva and retained *in situ* for months with good patient comfort.

Both methods will be much cheaper than the commercially available option and either can be used depending on the clinical need. In order to determine whether one is superior to the other, a proper clinical trial will be needed, which we do not think is worth the effort.

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Sir,
Trabeculectomy pearls of wisdom; mitomycin-soaked pledget 'necklace' suture

Sir,
Antimetabolite augmented trabeculectomy is now commonplace¹. The recent evolution of trabeculectomy technique and adoption of Mitomycin C and 5-Fluorouracil has caused no significant safety implications, despite early fears.²

We wish to share an additional technique to improve safety after suffering the unfortunate scenario of misplacing a mitomycin-soaked pledget during trabeculectomy. Meticulous surgical technique, a conscientious scrub nurse and methods of tracking sponges/pledgets (counts, receiver pads, radio-opaque