

viscoelastic entered the Molteno system and obstructed it. Healon GV is an effective cohesive viscoelastic with high molecular weight and high viscosity, which efficiently protects the corneal endothelium, maintains the anterior chamber,⁸ and can be removed from the eye⁹ without increasing the IOP.¹⁰ Clearly, however, Healon GV can be trapped in the filtering device and obstruct it over the long term, causing grossly raised IOP and subsequent damage to the corneal graft and the optic nerve.

This may be the consequence of either insufficient effort to remove it or because of its preferential entrance into the Molteno implant on first insertion into eye. The viscoelastic can be very slow to degrade, possibly due to low aqueous production.

In conclusion, every effort should be made to ensure that the filtering system is completely free of viscoelastic, especially in the case of cohesive viscoelastics, such as Healon GV.

References

- Melamed S, Fiore PM. Molteno implant surgery in refractory glaucoma. *Surv Ophthalmol* 1990; **34**: 441–448.
- Airaksinen PJ, Aisala P, Tuulonen A. Molteno implant surgery in uncontrolled glaucoma. *Acta Ophthalmol (Copenh)* 1990; **68**: 690–694.
- Cosar CB, Sridhar MS, Cohen EJ, Held EL, Alvim Pde T, Rapuano CJ. Indications for penetrating keratoplasty and associated procedures, 1996–2000. *Cornea* 2002; **21**: 148–151.
- Mills RP, Reynolds A, Emond MJ, Barlow WE, Leen MM. Long-term survival of Molteno glaucoma drainage devices. *Ophthalmology* 1996; **103**: 299–305.
- Lotufo DG. Postoperative complications and visual loss following Molteno implantation. *Ophthalmic Surg* 1991; **22**: 650–656.
- Cunningham Jr ET. Uveitis in children. *Ocul Immunol Inflamm* 2000; **8**: 251–261.
- Ayyala RS. Penetrating keratoplasty and glaucoma. *Surv Ophthalmol* 2000; **45**: 91–105.
- Volker-Dieben HJ, Regensburg H, Kruijt PJ. A double-blind, randomized study of Healon GV compared with Healon in penetrating keratoplasty. *Cornea* 1994; **13**: 414–417.
- Holzer MP, Tetz MR, Auffarth GU, Welt R, Volcker HE. Effect of Healon 5 and 4 other viscoelastic substances on intraocular pressure and endothelium after cataract surgery. *J Cataract Refract Surg* 2001; **27**: 213–218.
- Burke S, Sugar J, Farber MD. Comparison of the effects of two viscoelastic agents, Healon and Viscoat, on postoperative intraocular pressure after penetrating keratoplasty. *Ophthalmic Surg* 1990; **21**: 821–826.

T Ressiniotis and T Dowd

Department of Ophthalmology,
The James Cook University Hospital,
Marton Road,
Middlesbrough TS4 3BW, UK

Correspondence: T Ressiniotis,
Sunderland Eye Infirmary,
Queen Alexandra Road,
Sunderland,
SR2 9HP,
UK
Tel: +44 191 5656256;
Fax: +44 191 5699275.
E-mail: tomres@doctors.org.uk

Eye (2005) **19**, 1342–1343. doi:10.1038/sj.eye.6701762;
published online 26 November 2004

Sir, Measures to minimise and manage Mersilene mesh complications: remarks on a previously published paper

I would like to thank Dr Mehta and his colleagues for their article 'Management of Mersilene mesh chronic eyelid complications: a systematic approach' published in the June 2004 issue.¹

I have been using Mersilene mesh in eyelid surgery since 1993 and I would like to make two comments:

First: The authors mentioned some 'steps to minimize Mersilene mesh complications'. These included cutting the mesh 5 mm wide or less, eyelid skin crease stab incision closure, burying the mesh knot well beneath the frontalis muscle, and a postoperative course of systemic antibiotics.

Based on our experience, I would like to add one more step that is very important. The mesh should not touch the eyelid and/or brow skin while being inserted, I believe that the main cause of infection or granuloma formation is the introduction of organisms with the mesh while its being dragged and threaded inside the lid tissues. To avoid that, I first cover the whole area of the lid and brow with 'steri-drape' (3M Health Care, MN, USA). Through the sterile drape, I make the stab wounds in the lids and brow. I insert the mesh in a double triangle fashion leaving the ends protruding from the brow wounds. Only then did I remove the sterile drape, close the eyelid stab wounds, adjust the level of the lid by pulling the two ends of the mesh, and complete the procedure as usual.

Using this technique, the mesh does not come in contact with the skin and the risk of any organism getting trapped in the mesh spaces is practically eliminated. Consequently, the incidence of infection and/or granuloma formation is markedly reduced.²

Second: The authors proposed a systematic approach for the management of chronic granuloma and Mersilene

mesh extrusion. In cases of forehead granuloma or mesh extrusion without eyelid crease infection, the authors proposed to administer systemic antibiotics \pm excision of the granuloma without excising the mesh. I disagree with this. Based on my experience of over few hundred cases, I believe that this approach will not cure the problem, but will just quieten it temporarily and will only result in more infection and more fibrosis around the mesh. Even in the three cases reported by the authors, the condition only resolved when the whole mesh was dissected and excised as much as possible. I believe there is no place for a 'conservative' approach even with a single granuloma that appears innocent and amenable to simple excision under antibiotic cover.

References

- 1 Mehta P, Patel P, Olver JM. Management of Mersilene mesh chronic eyelid complications: a systematic approach. *Eye* 2004; **18**: 640–642.
- 2 El-Toukhy EA, Salem M, El-Shewy T, Abou-Steit M, Levine M. Mersilene mesh sling as an alternative to autogenous fascia lata in the management of ptosis. *Eye* 2001; **15**: 178–182.

EA El-Toukhy

Department of Ophthalmology, Cairo University,
14-A ElSobki Street, Apt. 23, Dokki, Cairo 12311,
Egypt

Correspondence: EA El-Toukhy
Tel: +202-3356017;
Fax: +202-3356017.
E-mail: eeltoukhy@yahoo.com

Eye (2005) **19**, 1343–1344. doi:10.1038/sj.eye.6701772;
published online 24 December 2004

Sir,

Reply to El-Toukhy

We thank you for your helpful comments about our paper¹ on the management of chronic Mersilene mesh exposure.

We fully agree that surgical tips to reduce contact between the patients' skin and the Mersilene mesh are to be recommended and are likely to reduce the risk of infection. We note that you had no cases of infection or granuloma in the 46 eyelids you published,² but that in your more extensive clinical experience of a few hundred cases that you mention in your correspondence, you had patients with infection and granuloma that required surgical excision of mesh, as in our cases.

We also find that management of chronic granuloma and infection is unlikely to be effective with just oral antibiotics. We state clearly, 'Systemic antibiotics and granuloma excision with removal of the immediately underlying mesh is not always adequate, as shown by these cases, and more extensive dissection and excision are often required'. The tertiary referred chronic cases illustrate the point that wide excision is required.¹

In addition, in our own series³ of 32 eyelids with Mersilene mesh frontalis suspension, with a mean follow-up of 28 months, we had three postoperative wound infection and one mesh exposure, all of which occurred within 4 weeks of the surgery. One of these patients was lost to follow-up. None of these patients were managed with antibiotics alone. Two patients with wound infection underwent wide mesh excision (up to 10 mm) and one patient with exposure underwent local mesh excision with systemic antibiotic cover, in contrast to the wide excision of the mesh required in the chronic cases. They have not had subsequent problems. We no longer use Mersilene mesh and prefer Prolene suture or autogenous fascia lata when appropriate, for instance, depending on the age of the patient and aetiology of ptosis.

References

- 1 Mehta P, Patel P, Olver JM. Management of Mersilene mesh chronic eyelid complications: a systematic approach. *Eye* 2004; **18**: 640–642.
- 2 El-Toukhy E, Salaem M, El-Shewy T, Abou-Steit M, Levine M. Mersilene mesh sling as an alternative to autogenous fascia lata in the management of ptosis. *Eye* 2001; **15**: 178–182.
- 3 Mehta P, Patel P, Olver JM. Functional results and complications of Mersilene mesh use for frontalis suspension ptosis surgery. *Br J Ophthalmol* 2004; **88**: 361–364.

J Olver, P Mehta and P Patel

The Western Eye Hospital, Oculoplastic and Orbital
Service, Marylebone Road, London NW1 5YE

Correspondence: J Olver,
The Western Eye Hospital, Oculoplastic
and Orbital Service,
Marylebone Road, London NW1 5YE
Tel: +44 207 886 3264;
Fax: +44 207 886 3259,
E-mail: janeolver@aol.com

Eye (2005) **19**, 1344. doi:10.1038/sj.eye.6701773;
published online 24 December 2004