

the capsular bag using a sealed-capsule irrigation device and 5-fluorouracil' by Milverton is of great interest, as irrigation of the capsular bag using the Milvella-sealed capsule irrigation device has the potential to destroy all lens epithelial cells without bystander damage in the rest of the eye. Previous attempts to hydrolyse lens epithelial cells in the bag using this device by irrigating with distilled water have failed, as residual cortical material appears to protect the equatorial cells. The author claims that irrigation with 5-fluorouracil prevented posterior capsule opacification in this case up to 1 year after surgery.

However, a careful perusal of the 12-month image shows that there is clearly fusion of the capsular bag around the intraocular lens haptics, which would suggest that viable lens epithelial cells are still present and that PCO may be delayed rather than prevented by irrigation with 5-fluorouracil.

Conflict of interest

The author declares no conflict of interest.

Reference

- 1 Milverton EJ. Irrigation of the capsular bag using a sealed-capsule irrigation device and 5-fluorouracil. *Eye* 2009; **23**: 1746–1747.

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Sir,
Reply to Mr Spalton

The opinions expressed by Mr David Spalton¹ are absolutely correct.

There is apparent fusion of the anterior and posterior capsules, as stated. 5-Fluorouracil may well only delay the onset of PCO, however clinical trials need to be carried out to determine its long-term effectiveness in preventing PCO. Sealed irrigation of the capsular bag, under positive pressure to inflate the bag fully, using Perfect Capsule, should enable an irrigating solution to reach the equatorial cells, eliminating them and so hopefully ensuring a clear and supple capsule.

Conflict of interest

The author declares no conflict of interest.

Reference

- 1 Spalton DJ. Re: The report 'irrigation of the capsular bag using a sealed-capsule irrigation device and 5-fluorouracil' by Milverton. *Eye* 2010; **24**: 1298–1299 (this issue).

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Sir,
Medial and lateral rectus recession: a novel and rapid stepped technique

The principle of muscle recession in squint surgery is to detach the muscle from the globe, then to reattach it at the pre-determined distance from the limbus with or without postoperative manipulation. In order to avoid excessive fibrosis and contracture of the muscle and adjacent tissues, this should be achieved with minimal trauma to the muscle and surrounding tissues. We describe a novel method of primary muscle recession that is used in our routine clinical practice.

Method

The conjunctiva and Tenon's capsule are raised as a flap and the muscle tendon is exposed at its insertion (Figure 1a). Light cautery is applied to the blood vessels at the insertion of the muscle tendon (Figure 1b). At 1 mm behind the insertion, one-third of the muscle tendon is secured (Vicryl 7-0, Ethicon, Spreintebach, Switzerland) using a locking suture (clove hitch knot, which consists of two half hitches made in opposite directions) (Figures 1c and 2a). Two-thirds of the width of the tendon is then detached from the globe, while the other third remains untouched (Figure 1d). Calipers are used to mark the desired amount of recession and the cut part of the tendon is reattached to the sclera. A spatulated quarter circle 6.0 needle is used to reattach the muscle by spreading the tendon through a 1.5–2-mm scleral passage (Figure 2b). The second part of the muscle is then recessed in a like manner (Figure 1e and f). The conjunctiva is then sutured with the 8-0 vicryl.

Discussion

Today, the most common technique of squint surgery is based on that of Helveston.¹ The squint hook is used to help recognise and stabilise the muscle, before it is detached from the globe. In our experience, during primary muscle surgery, fine-toothed forceps are all that is necessary to identify and secure the muscle tendon, without the need for a squint hook.

Our method has been used successfully for over 10 years. The maximum recession from this method is 6 mm. The main advantage is it minimises manipulation of the tissues and thus minimises fibrosis and scarring. In addition, it has fewer steps, is rapid to perform, and is easy to learn. The use of cautery, prior to any manipulation of the muscle, prevents bleeding and ensures good visibility throughout the procedure. The

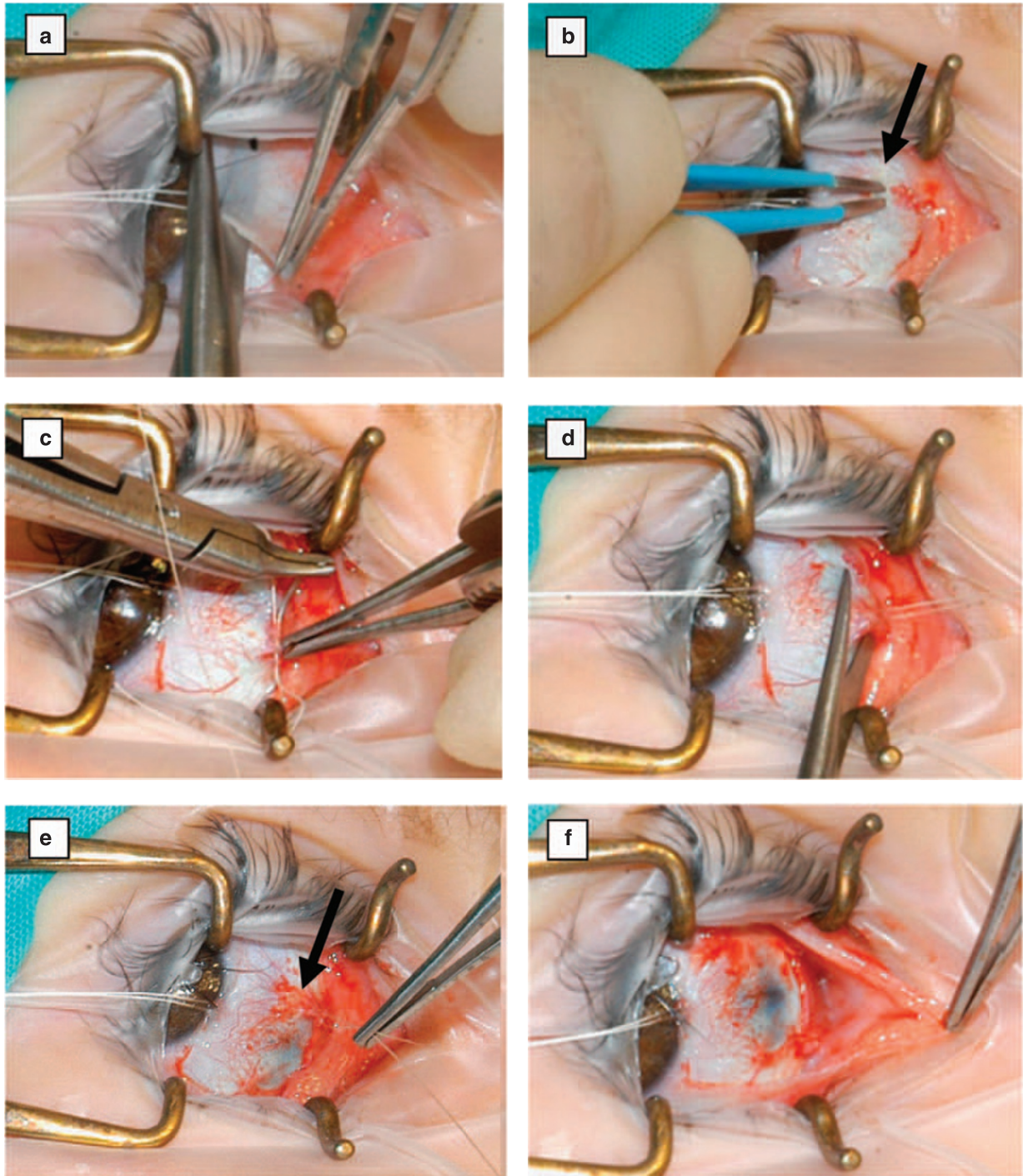


Figure 1 Surgical technique. (a) Firstly, a limbal conjunctival flap is created. (b) The blood vessels are identified at the muscle insertion (arrow) and cauterised. (c) One half of the muscle tendon is secured with the suture. (d) Two-thirds of the tendon is detached from the globe, while the other third remains untouched. The tendon is reattached at the desired distance. The other third of the tendon is secured with the suture (arrow) (e), detached and reattached at the desired distance (f).

muscle is not at any time fully detached from the globe and thus averts the rare but significant complication of a lost muscle during the procedure. Finally, the time taken

for each muscle is 10 min or less, and with two surgeons working in tandem on two eyes, we have significantly increased our surgical throughput.

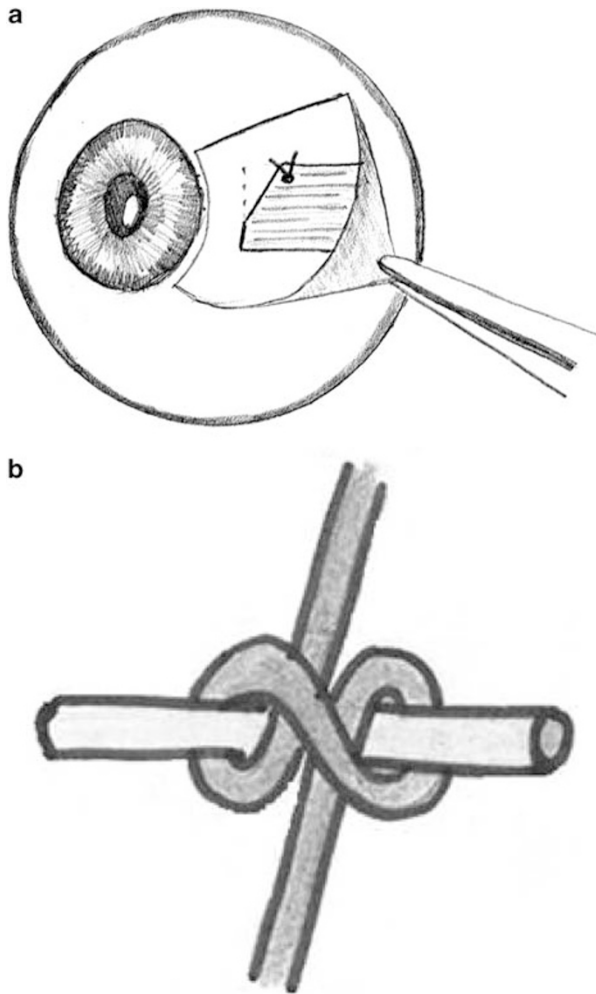


Figure 2 Illustration of stepped recession muscle (a). The muscle is identified and one-third of the tendon is secured with the suture. Two-thirds of the tendon is detached from the globe, while the other third remains untouched. The tendon is reattached at the desired distance. The tendon is secured using a clove hitch knot, which consists of two half hitches made in opposite directions (b).

Conflict of interest

The authors declare no conflict of interest.

Reference

- 1 Helveston EM. *Atlas of Strabismus Surgery*. The C.V. Mosby Company: Saint Louis, 1977, pp 58–60.

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Sir, Six-year dynamic growth pattern of two concentric congenital vitreous cysts

Ever since their first description over a hundred years ago,¹ vitreous cysts have remained a rare finding² and create in most cases very few clinical symptoms. The less frequently encountered congenital cysts are mostly non-pigmented, whereas the secondary, much more frequently seen pigmented cysts are mostly due to trauma, intraocular surgery, uveitis, and other causes.³ We describe herein the dynamic growth pattern of two concentric non-pigmented vitreous cysts, which were followed clinically over a period of 6 years.

Case report

A 62-year-old male patient presented with a shadow in the visual axis of the right eye. There was no previous history of intraocular surgery or trauma. Around the same time he was diagnosed by his dermatologist with the idiopathic Morbihan syndrome, which is characterized by intermittent facial swelling.⁴ Ophthalmic examination showed bilateral palpebral swelling. His best-corrected visual acuity was 1.0 in both eyes and slit lamp biomicroscopy revealed a free-floating transparent vitreous cyst in the right eye. Ultrasound-B (10 Hz) examination using a horizontal scan revealed two concentric cysts, as well as a third very small cyst on the anterior wall of the smaller inner cyst (Figure 1a). Cyst diameters were 7.15 and 4.37 mm, respectively. The benign nature of the cysts was explained to the patient and no further follow-up was scheduled.

The patient was called back 6 years later. Visual acuity was still 1.0. Biomicroscopy and ultrasound revealed the persistence of the two previously seen concentric cysts, although the small third cyst could not be found anymore (Figure 1b–d). The volume of the larger outer cyst had increased by around 72 mm³ and that of the inner cyst by approximately 81 mm³.

In view of the stable excellent visual acuity and the absence of subjective symptoms, the patient received no further scheduled follow-up.

Comment

Congenital vitreous cysts, either of the pigmented or of the non-pigmented type, are rare and usually do not interfere with visual acuity.² Pigmented cysts usually contain melanosomes, which resemble those from the iris or retinal pigment epithelium cells, or immature melanosomes, which suggests that these cysts may represent a choristoma of the primary hyaloidal system.^{3,5,6}

Our patient showed the non-pigmented variety of the cyst, which is thought to originate from the remnants of the intraocular hyaloidal vascular system, either from the hyaloidal artery or from Bergmeister's papilla.^{3,7} However, given the fact that these cysts are rarely removed surgically, the exact etiology still remains unclear.⁸

It is generally agreed that congenital cysts do not enlarge with time. In the present case, we could, however, record a surprisingly significant change in volume over a 6-year period. Despite this growth in size, the cysts continued to cause no substantial visual