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.

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ZK Ockrim¹ and GN Dutton²

¹Ophthalmology Department, Tennent Institute of Ophthalmology, Gartnavel General Hospital, Glasgow, Scotland, UK

²Royal Hospital for Sick Children, Yorkhill, Glasgow, Scotland, UK
E-mail: zoe_ockrim@hotmail.com

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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

Figure 1 (a) B-ultrasound (10 Hz) examination (Innovative Imaging Inc., Sacramento, CA, USA) at the first presentation. A small free-floating cyst is seen (diameter = 4.37 mm), which is enclosed within a larger cyst (diameter = 7.15 mm). Note a very small third cyst on the anterior wall of the smaller inner cyst. The retrobulbar shadow is due to the optic nerve sheath. (b) B-ultrasound (10 Hz) examination 6 years later showing the persistence of the two cysts enclosed in each other. The smaller cyst diameter has increased to 6.20 mm (volume increase by around 72 mm³) and the larger cyst diameter to 7.95 mm (volume increase by approximately 81 mm³). (c) Panoret 1000 fundus photography (Medibell, Yoqneaw Ilit, Israel) of the cyst showing small faint whitish speckles on the surface of the perfectly rounded cyst. (d) Optical coherence tomography (Zeiss, Dublin, CA, USA), using an 8-mm-wide scan showing an optically slightly distorted shape of part of the outer cyst. Note the very thin cyst wall with some areas of punctuated thickening, which may correspond to the whitish speckles seen on fundus photography.

disturbances. The reason for the disappearance of the third very small cyst during the follow-up period is not clear.

It is intriguing to speculate why the vitreous cyst was discovered during the same period as when the Morbihan syndrome became symptomatic. It is, however, not known whether these two pathologies are causally linked.

The indication for possible treatment of vitreous cysts depends on the importance of the subjective clinical symptoms. Cystotomy with argon or Nd-YAG has been described,⁹ although the efficacy of this approach has been queried by others.^{3,10} Alternatively, a pars plana vitrectomy has been proposed to ablate vitreous cysts if they give rise to severe visual impairment.³

In summary, the present case demonstrates that non-pigmented vitreous cysts can show a dynamic growth pattern and enlarge considerably in volume over several years without giving further rise to visual disturbances and the necessity of surgical removal.

Conflict of interest

The authors declare no conflict of interest.

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C Basdekidou and TJ Wolfensberger
Hôpital Ophtalmique Jules Gonin, University of
Lausanne, Lausanne, Switzerland
E-mail: thomas.wolfensberger@fa2.ch

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Sir,
Scleroplasty in progressive myopia

We read with great interest the article titled ‘The efficacy and safety of posterior pole buckles in the control of progressive high myopia’ by Ward *et al.*¹ which appeared in the 2009 issue of *Eye*.

We would like to mention the experience in 183 patients (86.33% unilateral and 13.66% bilateral) who underwent scleroplasty for progressive myopia after a period of up to 10 years (median 8 years) at Fyodorov Eye Center (Moscow, Russia).

Homologous sclera was used as graft for scleroplasty. A strip 8–9 mm wide and 7–8 cm long was excised from the sclera. The conjunctiva and Tenon’s capsule were incised. Tendons of the superior, lateral, and inferior rectus muscles, as well as the inferior oblique muscle were isolated. Then, one end of the scleral flap was passed under the superior rectus and secured by two sutures, and then the free end of the transplant was passed under the lateral rectus, inferior oblique, and inferior rectus muscles. The next stage of the operation consisted of shifting the scleral flap from the equator of the eye to the posterior pole. The transplant was stretched until the surgeon felt that it had settled on the posterior pole of the eye. The inferior end of the scleral flap was fastened by two sutures.

Examination showed that the progression of myopia was arrested in 95% of cases.

Stabilization of the process was determined by the refraction and axial length of the eye. Refraction decreased by 0.5–3.0 D (mean 1.3 D) in 61.5% of the cases in the early postoperative period. A-mode ultrasonography was used for axial length measurements. The range of pre-operative axial length was 26.5–35.2 mm (median 31.8 mm). The axial length of the eye shortened by 0.1–2.5 mm (mean 0.5 mm) in the early postoperative period in 35.4% of the cases and by 0.98 mm at a later period in 48.6% of the cases. The decrease in these parameters immediately after the operation may be explained by the fact that the transplant had stretched the sclera of the myopic eye, while over a long-term period this effect must have been intensified as a result of sclera cicatrization at the site of its contact with the transplant.

The following indications for scleroplasty operation were considered:

- (1) A rapid progression of myopia from 5.0 to 6.0 D and its increase by at least 1.0 D per year; augmentation of dystrophic changes in the fundus; and the resultant deterioration in visual acuity.
- (2) An increase in dystrophic changes in the retina and vitreous body, even when there was no increase in the degree of myopia.

Contraindications for surgery were acute and chronic inflammatory diseases of the eye and lacrimal ducts, neoplasm, and pathological exophthalmia.

The postoperative complications were separation of sutures, elevated IOP, and iridocyclitis in 5% of the patients.

It might be appropriate to recommend a larger prospective, randomized, clinical trial study to determine a possible therapeutic role for this treatment.

Conflict of interest

The authors declare no conflict of interest.

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NV Balashova¹, A Ghaffariyeh² and N Honarpisheh²

¹The SN Fyodorov Federal State Institution
‘Eye Microsurgery Complex’, Moscow, Russia

²Dr Khodadoust Eye Hospital, Shiraz, Fars, Iran
E-mail: alirezaghaffariyeh@hotmail.com

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Sir,
**The natural history of the Charles Bonnet Syndrome.
Do the hallucinations go away?**

Recurrent visual hallucinations in patients with vision loss who have normal mental status and insight into the unreal nature of the perception have been called Charles Bonnet Syndrome after the naturalist who in 1769 described the hallucinations that his clear-thinking and visually impaired grandfather experienced.¹ This peculiar symptom of vision loss is often under-reported by patients for fear of negative consequence and is often under-diagnosed by clinicians.

As part of a larger prospective study of vision rehabilitation in patients and morbidity, 225 consecutive patients seen over a 1-year period were asked the following question: ‘Many patients who come to this Clinic see things that they know are not there. Some see colored shapes or organized patterns or they may even see vivid images of people, animals or flowers. Have you ever experienced this?’ Patients were seen again 1 year later and asked the same question.

The mean age of patients seen was 80 and 141 (63%) had age-related macular degeneration. More than one-third had $\geq 6/18$ visual acuity in their better-seeing eye. As previously reported, a total of 78 patients (35%) reported seeing visual hallucinations at the initial visit.² After 1 year, 152 patients were seen again, 19 were deceased, and 54 were not seen owing to illness, moving out of the community, or because they were not interested to return. Of the 54 patients seen at 1 year who had initially reported hallucinations, 15 patients (28%) no longer experienced the hallucinations. Of the 98 patients seen at 1 year who had not initially reported