retinitis. For patients who have developed CMV retinitis, monitoring of treatment protocols should be based on the patient's clinical systemic condition with less reliance on blood results and CD4 counts.

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J-J Lee[1], SCB Teoh[1], JLL Chua[1], MCH Tien[2] and T-H Lim[1]

[1]The Eye Institute, Tan Tock Seng Hospital, 11 Jalan Tan Tock Seng, Singapore 308433, Republic of Singapore

[2]Imperial College School of Medicine, University of London, UK

Correspondence: J-J Lee,
Tel: +065 6357 7726;
Fax: +065 6357 7718.
E-mail: Jong_Jian_Lee@ttsh.com.sg

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Sir,

Silicone oil migration causing increasing proptosis 13 years after retinal surgery

Silicone oil is necessary for endo-tamponade in selected cases of retinal detachment. Oil granuloma is a recognised condition in which there is a granulomatous response to mineral oils in the body tissues. In the past, this has been a well-documented complication of breast augmentation surgery. We report a case of silicone oil leaking into the periorbital and retro-orbital tissues, causing increasing proptosis and red eye many years after retinal surgery.

Case report

A 54-year-old Caucasian male presented with a 6-month history of a red, 'unsightly', more prominent right eye. He had suffered trauma to this eye 40 years previously and developed cataract and retinal detachment 13 years ago. He underwent a lensectomy and vitrectomy with silicone oil insertion at that time. The eye had been blind since this surgery and he was lost to follow-up until this recent complication. He was a non-smoker and had no other medical history and was on no medication. On examination, the eye was divergent and proptosed with a large subconjunctival gelatinous mass medially and an opaque, vascularised cornea (Figure 1). There was no regional lymphadenopathy. A CT scan

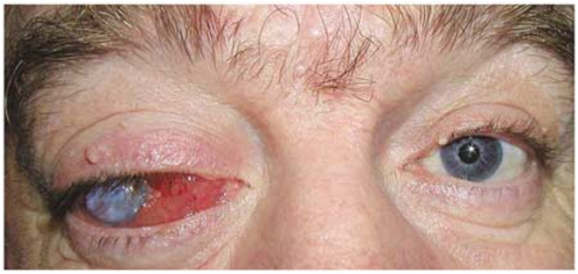

Figure 1 Clinical photograph showing gelatinous subconjunctival mass medially in the right eye.

showed enhancement of the soft tissues, particularly around the right medial rectus (Figure 2a). There was coexisting unilateral axial myopia, which was confirmed on A-scan (axial length right eye was 29.97 mm and left eye was 24.92 mm). Biopsy of the subconjunctival mass revealed spaces of varying shape and size where silicone oil material had been lost during processing (Figure 2b). There was no evidence of tumour infiltration or foreign body material present and a relatively mild inflammatory reaction was observed. The pathological findings are consistent with leakage of silicone oil into the subconjunctival space and periorbital tissues. The patient was treated with enucleation and perioperatively glistening silicone oil globules were visible to the naked eye throughout the thickened peri- and retro-orbital tissues. The posterior globe sclera was markedly thinned and oil appeared to leak diffusely through this area.

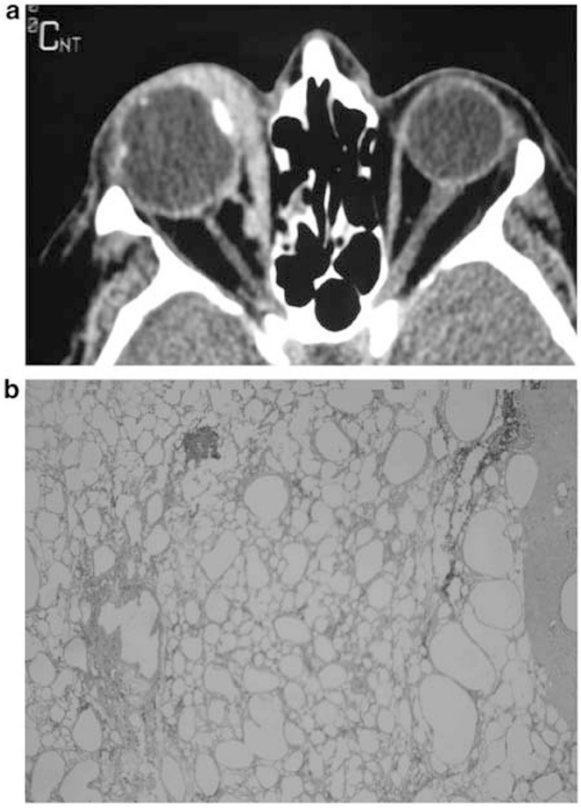

Figure 2 (a) CT scan image showing proptosis of the right eye, unilateral myopia, and soft tissue enhancement particularly in the region of the medial rectus. (b) Histopathological picture showing spaces of varying shape and size where silicone oil material has been lost during processing. This contrasts with normal fat in the periorbital region, which would demonstrate lipid spaces of the same size histologically (haematoxylin and eosin (H&E) stain).

Comment

Oil granuloma occurs when bulky mineral oils are injected into body tissues. Silicone oils were previously injected locally for breast augmentation and reported to cause granulomatous reactions requiring the removal of the granulomas between 3 and 20 years after the silicone injections.[1] This case report describes the complication of silicone oil used for endo-tamponade leaking out of the eye to cause thickening of the peri-orbital tissues 13 years after the oil was inserted. There have been few reports previously of oil migrating out of the eye in other situations. It has migrated along the optic nerve into the brain in an AIDS patient who presented with a peripheral neuropathy 15 months after retinal surgery. Neuro-imaging revealed oil within the lateral ventricles and the intracranial segment of the optic nerve.[2] It was believed that the oil infiltrated the tissues due to prolonged raised intraocular pressure.[2] Nazemi *et al*[3] reported a case where silicone oil migrated into the subconjunctival space and orbit through an Ahmed valve in an aphakic patient despite inferotemporal positioning of the valve to try to minimise this risk. Oil also drained through a Molteno implant into the subconjunctival space in an aphakic male.[4] Further reports describe a patient in whom silicone oil caused ptosis after migrating into the eyelid 19 years after retinal surgery,[5] and two patients who developed episcleral granulomas after silicone oil tamponade.[6] Clinicians have described leakage of oil through the scleral entry ports[5,6] and the presence of post-operative ocular hypertension as pertinent factors leading to this complication.[5] We recommend long-term follow-up of patients with intraocular silicone oil in view of this potential serious complication.

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CA Cooke[1], ST White[1], RM Best[1] and MY Walsh[2]

[1]Department of Ophthalmology, Royal Victoria Hospital, Grosvenor Road, Belfast Co. Antrim BT12 6BA, UK

[2]Department of Pathology, Royal Victoria Hospital, Belfast, UK

Correspondence: CA Cooke,
Tel: +44 289 063 3822;
Fax: +44 289 033 0744.
E-mail: carolecooke322@ntlworld.com

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Sir,

Vitamin A deficiency presenting with microbial keratitis in two patients in the UK

Vitamin A deficiency is a rare finding in the developed world. In the United Kingdom, corneal causes account for only 1.6% of cases of severe visual impairment in children.[1] We report one adult and one child who both presented with microbial keratitis as a consequence of the ocular surface features of vitamin A deficiency

Case 1

A 10-year-old boy of Afro-Caribbean descent presented in September 2003 with a 6-week history of a painful left eye with epiphora, which was not responding to chloramphenicol drops commenced by the local doctor. During this time, he had been unwell with anorexia, headaches, fevers and lethargy. Presentation to an emergency department 2 weeks previously had failed to reveal any specific systemic abnormality. Some years previously he had been investigated for haematuria for which no cause had been found. Otherwise there was no other history of significant systemic or ophthalmic problems, in particular, contact lens wear or trauma. Close questioning of the family revealed a 5-year history of poor dietary intake consisting of the following foods exclusively: rice, pasta, roast potatoes, hot chips, blackcurrant cordial, 'fairy cakes', deep-fried flour dumplings, chocolate biscuits, and prepacked strawberry/cherry-flavoured sweets. In particular, no fruit, vegetable, or meat was consumed.

Visual acuity was 6/9 right and 6/18 left. The left eye had periorbital oedema with an inferior left corneal infiltrate and overlying epithelial defect (approximately 2 mm horizontally by 1 mm vertically) and a small hypopyon (Figure 1). Widespread punctate epithelial erosions were present in both corneas. Both conjunctiva were dry looking and thickened with obscuration of normal vascularity, although no Bitot spots were noted. Both posterior segments were unremarkable.

A left corneal scrape was performed under general anaesthetic. Microscopy demonstrated large numbers of Gram-negative bacilli and a small number of polymorph neutrophils. Hourly by day and two hourly by night ofloxacin 0.3% drops were commenced, combined with cyclopentolate 1.0% twice daily. Culture grew *Pseudomonas aeruginosa*, sensitive to ciprofloxacin. The condition resolved over the coming 2 weeks of treatment leaving a small inferior corneal scar.

The clinical diagnosis of vitamin A deficiency was made. Vitamin A (retinol) blood assay confirmed a deficiency with blood concentration of <0.1 mg/l (reference range 0.2–0.8 mg/l). The paediatric unit reviewed the patient and were unable to find evidence of a malabsorption syndrome. In particular, his coeliac and inflammatory bowel disease markers were all within the normal range.

ERG demonstrated low amplitude in light- and dark-adapted conditions (Figure 2).

He took a short course of oral vitamin A supplementation (his diet had improved since discharge to include a broader range of foods). Systemically, there had been an improvement in his health. Subjectively, both eyes returned to normal; however, there was central punctate epithelial staining despite two to four times per day of polyvinyl alcohol lubricants. Visual acuity of the left eye was 6/9. At this stage, the ERG had shown recovery to a virtually normal level with light-adapted

Figure 1 Case 1 at presentation with corneal infiltrate, overlying epithelial defect and small hypopion.