stabilised at approx. 12 mmHg with regression of choroidal effusions 2 weeks following the procedure and VA remained at 6/24. Unfortunately, the patient then emigrated and died shortly afterward.

Patient B is an 81-year-old man with right-sided Eale's disease who suffered recurrent vitreous haemorrhage between 1948 and 1994. During this time, he also suffered from chronic uveitis with frequent exacerbations. In the 1970s he was diagnosed with bilateral acute angle closure glaucoma and treated with bilateral peripheral iridotomy; VA at that time was R 6/9 and L 6/6. IOP was poorly controlled and glaucomatous field damage occurred. In 1985, right and left trabeculectomies were performed. IOP was controlled in the mid-teens in both sides. By 1995, VA deteriorated to count fingers in the left side with significant glaucoma damage and cataract. In 1998, left extracapsular cataract extraction with intraocular lens implant was performed. This improved the vision to 6/36. In 2001, the patient developed left bacterial keratitis with hypopyon and VA of 6/60. A number of weeks later, the patient presented with hand movement vision both sides, a hypotonus (3 mmHg) left eye and large choroidal effusions. A cyclodialysis cleft was identified at the 10 O'clock position and treated with transcleral diode laser (16, I s bums at 2000 mW). At latest follow-up (6 months post-treatment), VA was 6/18—with an IOP of 12 in the left eye, no choroidal effusions, no identifiable cleft and a quiet anterior chamber. Unfortunately, fields were very constricted because of glaucomatous damage.

Both patients had their mydriatics stopped before the treatment was performed. Two parallel rows of confluent transcleral diode laser burns were applied consecutively in one session at the conjunctival limbus in the area overlying the cyclodialysis cleft. Post-procedure discomfort and inflammation were controlled with the minimum dose of topical steroid drops.

Comment

Cyclodialysis clefts can be a difficult problem to identify and can cause significant visual loss. Several treatment modalities have emerged. We have described a minimally invasive method that can be performed under local anaesthetic without distress to the patient, limited theoretical complications and good efficacy. We recommend the use of transcleral diode laser in the first-line surgical treatment of cyclodialysis clefts.

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Sir,

Lipogranuloma of the nasolacrimal system, an iatrogenic and preventable entity.

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Congenital nasolacrimal duct obstruction is a common problem. It affects approximately 6% of infants,¹ and 90% resolve spontaneously by 1 year. However, some children require syringing and probing. After the probe has entered the lacrimal punctum, the remainder of the probing procedure is blind. This can give rise to inadvertent formation of a false passage and the procedure has a recognised failure rate. Failure may occur because of the anatomical level of the obstruction, the severity of the obstruction, or technical difficulty. The formation of a false passage may occur in 15% of the cases, even in experienced hands.²

Some authors routinely irrigate the lacrimal system with antibiotic and steroid after probing.³ We would like to highlight the dangers of such a practice by illustrating three cases referred to us with complications after irrigating such ointments through unsuspected false passages.

Case 1

An 11-month-old infant was referred with a well-circumscribed swelling below his right eyelid (which had been present for 4 months) and epiphora. The infant previously had syringing and probing of the right nasolacrimal system at 6 months of age for nasolacrimal duct obstruction at another unit. This was repeated 3 months later because of persistent symptoms of constant epiphora. At the end of the syringing and probing, Terra-Cortril, a tetracycline/steroid ointment in a petroleum base, was irrigated through the lacrimal system. The unsightly firm swelling under the right eyelid developed within 6 weeks of the syringing procedure and remained unchanged for 4 months, when the child was referred. Exploration and removal of the lesion was performed under anaesthesia with simultaneous intubation of the lacrimal system with silastic tubes. Pathology revealed a diagnosis of lipogranuloma formation and myospherulosis. This is an iatrogenically induced chronic inflammatory reaction to a mixture of red blood cells and petroleum-based ointments.

Case 2

A 10-month-old infant had syringing and probing for congenital nasolacrimal obstruction of the right lacrimal system. This was repeated 2 months later for unresolved symptoms of epiphora, and the procedure was completed with irrigation of Terra-Cortril-through the lacrimal system.

The child was referred to our service with a swelling below the right eyelid that developed 7 weeks after the procedure and persisted for 5 months. A cystic haematoma was evacuated from under the eyelid. Pathology confirmed a foreign body granulomatous reaction with myospherulosis. The lesion recurred 4 months later requiring re-evacuation, and subsequently a right dacryocystorhinostomy was performed.

Case 3

A 13-month-old-child had syringing and probing performed for congenital nasolacrimal duct obstruction on both sides, with Terra-Cortril irrigation at the end of the procedure. Two months later, inflammatory swelling under both eyelids developed and epiphora was still present. She was referred to our unit for evaluation. Excision of the granuloma was performed under general anaesthesia, and bilateral dacryocystorhinostomies were performed. Pathology confirmed a necrotising granulomatous reaction with myospherulosis and dystrophic calcification. Four months later, re-excision of the granulomas was necessary and a revision of the DCR was required.

Comment

Lacrimal probing is a common, but not always successful, treatment of lacrimal duct obstruction in infants. The formation of false passages and iatrogenic stenosis are recognised problems. We report a series of cases that developed complications arising from lacrimal irrigation with tetracycline/steroid ointment into unsuspected false passages. We are unaware as to how common the routine irrigation of such ointments is after probing. This practice should be avoided because inadvertent subcutaneous infiltration of these agents may produce chronic inflammation, tissue necrosis, permanent damage to the lacrimal system, and disfiguring scars as illustrated (Figure 1a).

In all three cases, the histology was identical. Myospherulosis is an iatrogenic foreign body lipogranulomatous reaction caused by paraffin-based ointment becoming trapped within tissues. It is also known as vasinoma or paraffinoma, and is a distinctive inflammatory histiocytic reaction consisting of epithelioid and giant multinucleated cells with foreign

Figure 1 (a) Bilateral soft tissue inflammatory swelling below the lower eyelids, worse on the left side (case 3). (b) Histology of the lesion. Vacuoles lined by histiocytes containing spherules, which are erythrocytes altered by petroleum. Haematoxylin and eosin stain. Magnification $\times 200$.

body types and traces of liquids in the form of numerous drops and vacuoles (Figure 1b). The brown spherules are erythrocytes that have been altered and clumped by the action of the petroleum.⁴ There are several reports of foreign body giant cell reaction to insoluble tetracycline preparations and tetracycline powder in petroleum-based carrier vehicles, mostly in the otolaryngology literature.^{5,6} There are few reports of ophthalmic manifestations. The lesions must be removed as extensively as possible as they can recur, requiring repeat procedures as seen in two of our patients.

Swelling of the eyelid during lacrimal irrigation indicates trauma to the canalicular mucosa with subcutaneous infiltration. Probing should be halted immediately. If the irrigating solution is saline or fluorescein, the problem resolves within 24 h.⁷ At the end of probing, the presence of the probe in the nose should be confirmed by a second probe; metal-on-metal contact provides confirmation that the first probe is in the nose. Then irrigation with saline or fluorescein can be safely performed. Sometimes a thin membrane over the tip of the probe can fool the doctor into thinking it was truly metal-on-metal, and retrieval of irrigating fluid from the nose confirms a patent passage.

Similarly in dacryocystography, if a cannulation has been traumatic and a false passage is suspected, the use of oil-based agents should be avoided. Lipiodol is the most commonly used contrast agent for this procedure. It is an iodised oil-based contrast agent. It too causes lipogranuloma formation if it extravasates into tissues via a false passage.⁸

Other case reports highlight equally disastrous consequences of irrigating other solutions through false passages. One report described permanent visual loss and optic atrophy following irrigation of the lower canaliculus with 20% chloramphenicol. A false passage had been created allowing the solution to infiltrate orbital tissues. The oedema that ensued caused a central retinal artery occlusion.⁹ A further report described occlusion amblyopia in an infant caused by complete occlusion of an eye for 1 month from persistent periorbital swelling after methylene blue infiltrated the periorbital tissues inadvertently through a false passage during probing.¹⁰

Excellent results can be obtained in treating infants with lacrimal system obstruction without routinely irrigating antibiotic or steroid ointments through the lacrimal system. Most antibiotic/steroid solutions that are manufactured for topical ophthalmic use are specifically contraindicated for use intramuscularly or intradermally. Petrolatum-based substances should not be used after lacrimal irrigation because disfiguring scars, permanent lacrimal drainage problems, and repeat surgical interventions can be the unwanted result.

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Sir,

The diagnosis of autosomal dominant late-onset retinal degeneration in two sisters

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Late-onset retinal degeneration (L-ORD) is an autosomal dominant disorder characterised by onset of night vision problems in midlife and progressive loss of peripheral visual field and central vision over ensuing decades.^{1–4} The late onset of symptoms mimics other more common