and is now widely used in nasal and sinus surgery. In this case an endoscope was used to ensure the correct route for marsupialisation of the cyst into the nose via the craniectomy, but would have been inappropriate to approach the mucocele itself because of the distorted anatomy in the area and the displacement of the cavernous sinuses and contents in an already inaccessible ara of the nose. It was thus safer to approach this case externally.

Non-specific symptoms and difficulty of diagnosis by radiography often lead to a delayed diagnosis.[7] It can be expected that a mucocele from a lateral recess would be even less amenable to early diagnosis, exemplified by recurrent episodes of orbital cellulitis in our case. Also isolated cases of sphenoid sinusitis as demonstrated by CT scan in this case (Fig. 1) are rare. It is not possible to determine the relative contribution of this infection versus the mucocele with respect to the likely cause of the recurrent orbital cellulitis and orbital cellulitis associated with a sphenoidal sinus mucocele has not been previously reported.

References

1. Evans C. Aetiology and treatment of fronto-ethmoidal mucocele. J Laryngol Otol 1981;95:361.
2. Chui MC. Computed tomography of sphenoid sinus mucocele. J Laryngol Otol 1983;12:263–9.
3. Sellars SL, de Villiers JC. Clinical records: the sphenoid sinus mucocele. J Laryngol Otol 1981;95:493.
4. Weber AL. Inflammatory disease of the paranasal sinuses and mucoceles. Otol Clin North Am 1988;21:421–36.
5. Kattan KR, Potter GD. Lateral extension of the sphenoid sinus. Med Radiogr Photogr 1983;59:9–12.
6. De Juan E, Green RW, Iliff NT. Allergic periorbital mucopyocele in children. Am J Ophthalmol 1983;96:299–303.
7. Bricout JH, *et al.* La mucocele sphénoidale: un diagnostic d'ophtalmologie douloureuse à ne pas méconnaître. Rev Otoneuroophthalmol 1984;56:357–64.

Emma Rowlands ✉
Department of Medicine
St Thomas' Hospital
Lambeth Palace Road
London SE1 7EH, UK

Graham Westmore
Pilgrim Hospital
Boston
Lincoln, UK

Sir,

Aberrant lacrimal gland within the tarsal plate presenting as hyperlacrimation

An aberrant lacrimal gland is defined as the presence of lacrimal gland at any site outside the lacrimal fossa.[1] Aberrant lacrimal gland has been reported within muscle cone,[2] in the ciliary body,[3] within the bulbar conjunctiva[4] and at other sites. Depending on the site of aberrant lacrimal gland, the presenting complaint includes proptosis,[5] glaucoma[3] or a lump on the bulbar conjunctiva. Occasionally these aberrant glands can develop into pleomorphic adenoma or adenocarcinoma. If the aberrant lacrimal gland is associated with congenital lacrimal fistula then hyperlacrimation can occur. We report a rare case of aberrant lacrimal gland with fistula originating within the tarsal plate. This is believed to be the first case ever reported at this site.

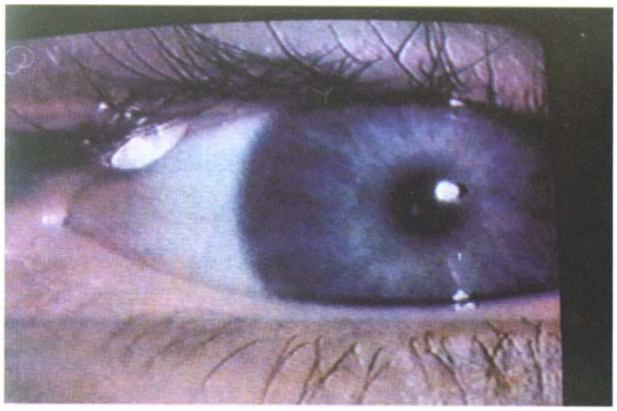

Fig. 1. *A tear drop appearing at the right upper lateral lid margin, which gradually increased in size over a 1 min period.*

Case report

A 15-year-old girl presented to our clinic with the symptom of persistent watering from her right eye since birth. The flow of tears was aggravated by cold wind, conjunctival irritation and emotion. This had resulted in frequent excoriation of her right cheek. Her main concern at presentation was that she was unable to put on make-up as it kept being washed away by the flow of tears. The patient had had nasolacrimal probing when she was 1 year old with no benefit. She had had a sac washout performed at 10 years of age which showed patency of the canaliculi and nasolacrimal duct.

Clinical examination revealed a duct opening in the lateral upper lid margin behind the eyelashes (Fig. 1). The duct constantly secreted tear fluid and then dripped down onto her right cheek. The rest of the right eye and the contralateral eye were normal.

The duct was probed and retrograde injection of radio-opaque contrast medium showed a fistula travelling up the height of the upper tarsal plate. A further gallium-67 uptake study showed a normal lacrimal gland bilaterally with no separate focus.

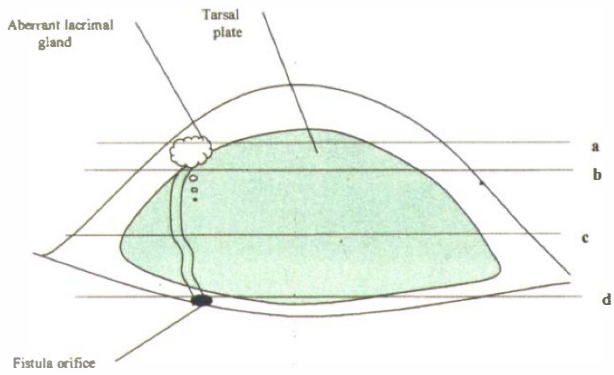

Fig. 2. *Levels of histological sections in Fig. 3a-d.*

Initially, cautery to the duct opening was done in an attempt to seal it off. This failed to stop the flow of tears. Subsequently, wedge resection of the right upper eyelid was carried out.

Histological examination of the resected tissue (Fig. 2) showed the normal acinotubular structure of an aberrant lacrimal gland situated at the superior border of the tarsal plate (Fig. 3a). The lacrimal gland was surrounded by a capsule. A double-layered cuboidal epithelial duct led from the gland and coursed down within the tarsal plate (Fig. 3b,c). The duct opened just posterior to the eyelash follicles and anterior to the meibomian gland openings at the upper lid margin. The architecture of the duct opening had been distorted by previous cautery but the lumen was not obliterated (Fig. 3d).

The patient remained free of symptom at subsequent follow-up with good cosmetic results in the right upper lid. She was discharged after 8 months.

Comment

Aberrant lacrimal gland is a rare cause of hyperlacrimation. This occurs when the aberrant gland is associated with congenital lacrimal fistula. The opening of congenital lacrimal fistula can be found subcutaneously in the upper lid just above the level of the tarsal plate.[6] It has also been seen in the lateral canthus.[7] There was one case of fistula orifice being found at a distance from the eye in the temporal region.[8] Such a fistula discharges tears, the flow being increased by the usual stimuli that cause lacrimation. This indicates that their innervation is similar to that of normal lacrimal gland.

Age of presentation varies. The discharge may be so small and intermittent that most of the fluid is lost by evaporation and thus may not be noticed for some time after birth. In our patient, the symptom occurred early because the tear fluid was constantly being secreted. Maceration by tears can give rise to eczema and excoriation at the opening, sometimes leading to intermittent inflammation with discharge of pus.[6]

The embryonic origin of aberrant lacrimal gland and fistula can only be speculated at present. In this particular case the aberrant lacrimal gland could represent an ectopic accessory lacrimal gland (of Wolfring), thus explaining the continuous nature of its secretion. The duct and its orifice would have been gradually brought down to the lid margin during growth of the lid fold and tarsal plate.

A unilateral watering eye is more commonly a sign of an obstructive process, especially in the young. However, if systematic investigation for tearing yields no results

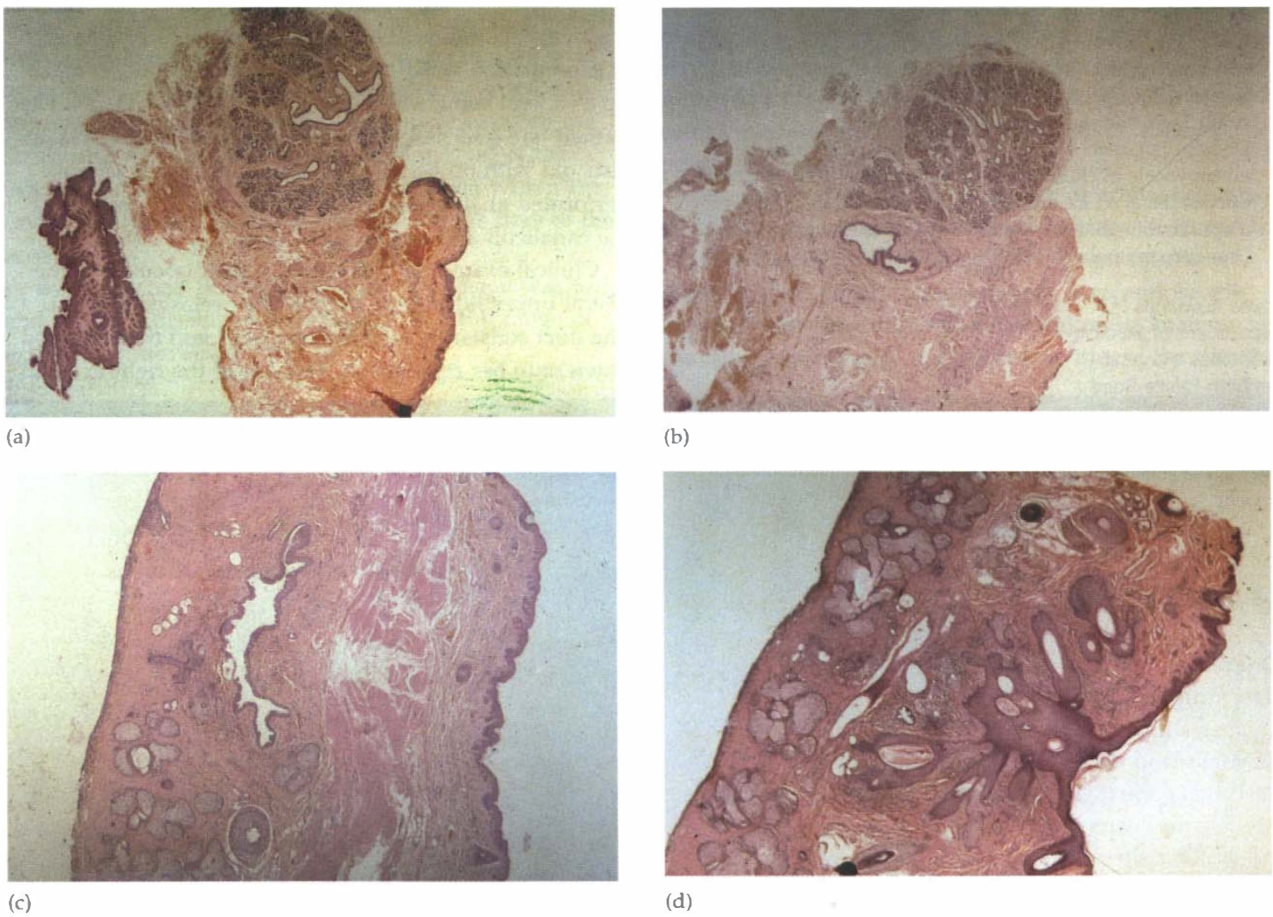

Fig. 3. *Histological photomicrographs showing horizontal sections of the resected right upper lid. (a) Well-defined aberrant lacrimal gland with acini and ductules at the superior border of the tarsal plate. (b) The fistula leaving the aberrant lacrimal gland and entering the tarsal plate. (c) The fistula within the tarsal plate, surrounded by meibomian glands. (d) Fistula emerging at the lid margin with its lumen partially obliterated by cautery.*

then the possibility of aberrant lacrimal gland with fistula needs to be considered among other rare causes. The use of probing can demonstrate the presence of a fistula, which usually fills with dye on retrograde injection. The mass of the aberrant gland may be too small to show up on a radioisotope uptake study, as happened in our case. Surgical excision of the offending aberrant gland and fistula is the treatment of choice.

References

1. Yanoff M, Fine B. Orbit: neoplasms and other tumours. In: Ocular pathology. 4th ed. St Louis: Mosby-Wolfe, 1996:505.
2. Mueller E, Borit A. Aberrant lacrimal gland and pleomorphic adenoma within the muscle cone. Ann Ophthalmol 1979;11:661–3.
3. Morgan G, Mushin A. Ectopic intraocular lacrimal gland. Br J Ophthalmol 1972;56:690–3.
4. Firat T, Emuller U. Two cases of aberrant lacrimal gland. Ann Ophthalmol 1970;2:50–1.
5. Baldridge M. Aberrant lacrimal gland in the orbit. Arch Ophthalmol 1970;84:758–60.
6. Duke-Elder S. Normal and abnormal development. In: Duke-Elder S, editor. System of ophthalmology, vol. 3. London: Kimpton, 1964:917–23.
7. Malhotra M. Congenital fistula of lacrimal duct. Br J Ophthalmol 1956;40:559–61.
8. Kural G, Serifoglu A, Erture S. A case of aberrant lacrimal gland and fistula. Br J Ophthalmol 1989;73:376–7.

K.T. Sim
S.C. Sullivan ✉
Department of Ophthalmology
East Glamorgan General Hospital
Pontypridd CF38 1AB, UK

Sir,

Desmoplastic trichilemmoma of the upper eyelid

This rare benign neoplasm of the hair follicle usually presents on the face, scalp or chest of middle-aged patients. It can mimic various skin carcinomas, verrucas or cutaneous horns both clinically and histologically. We describe a case of desmoplastic trichilemmoma occurring in the upper eyelid of a middle-aged woman. This site of occurrence has not previously been reported.

Case report

A 51-year-old Caucasian woman presented with a 12 month history of a slowly enlarging painless left upper lid lump. Examination revealed a 5 mm warty lesion attached to the left upper eyelid margin with evidence of crusting over the surface. The lump was completely excised under local anaesthetic and the specimen sent for histopathological diagnosis.

The tissue report was as follows: Histological examination showed a thickened skin with an attached underlying well-circumscribed, nodular fairly symmetrical lesion (Fig. 1). The tumour showed a characteristic biphasic appearance. At the periphery, there were irregular lobules of squamous cells with peripheral palisading and focally displaying periodic acid-Schiff (PAS)-positive glycogen-containing cells representing proliferation of the outer root sheath.

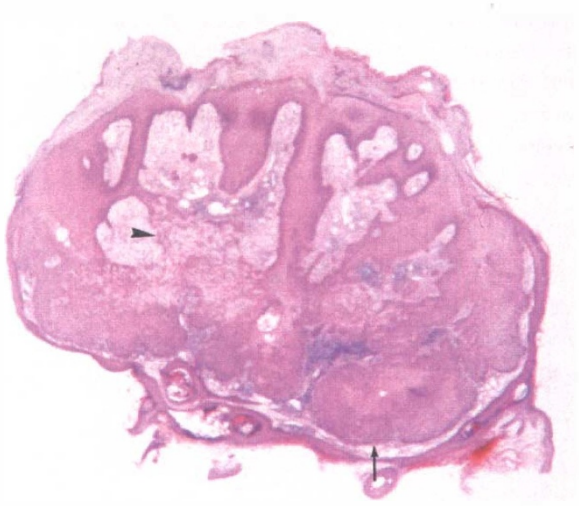

Fig. 1. *Skin with a nodular lesion displaying a biphasic appearance of peripheral sheets of squamous cells (arrow) and cords of smaller epithelial cells in the centre. Arrowhead indicates desmoplastic areas. (H&E; ×10.)*

Towards the centre, the squamous cells merged with narrow cords of smaller epithelial cells displaying a pseudocarcinomatous growth pattern. There was prominent stromal sclerosis (Fig. 2). A basement membrane was seen around the cell masses of both phases, staining positively for PAS and collagen type IV by immunohistochemistry. Mitoses were not seen in any portion of the tumour and there was no significant cytological atypia.

Comment

Desmoplastic trichilemmoma is a rare benign adnexal skin tumour related to the outer sheath of the pilosebaceous hair follicle (trichilemmoma), occurring with a frequency of about 0.003% of all skin tumours.[1] It predominantly affects women, and is almost always situated on the face. It presents typically as a slow-growing, asymptomatic, solitary, hard, annular lesion, 5–10 mm in size, with a raised border and depressed centre. As a consequence of the variety of its appearances this tumour can easily be misdiagnosed as a basal cell carcinoma (nodular or morphoeic forms), squamous cell carcinoma, invasive carcinoma, follicular keratosis or cutaneous horn.[2]

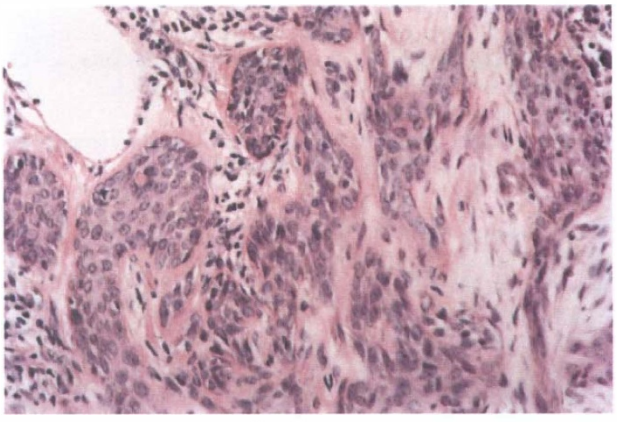

Fig. 2. *Deeper central component of smaller epithelial cells in a dense eosinophilic hypocellular stroma. (H&E; ×400.)*