inflammatory spectrum of these conditions and the effective response to cyclosporine.

Morgan and Callen<sup>8</sup> report a 38-year-old man with acute myelogenous leukaemia presenting with a left cellulitis and later with haemorrhagic pustules on his hands. Biopsy revealed a neutrophil infiltrate of the dermis.

The pathogenesis of Sweet' syndrome is unknown. Gassuddin *et al*<sup>9</sup> propose an immunologic mechanism in which there is an imbalance between T helper cell types and cytokine secretion. The release of cytokines occurs in response to an unidentified trigger that results in chemoattraction of leucocytes. This may explain the rapid response to immunosuppressive therapy.

This unusual skin condition should be considered in all cases of periorbital oedema of unknown cause.

## References

- 1 Sweet RD. An acute febrile neutrophilic dermatosis. Br J Dermatol 1964; **76**: 349–356.
- 2 Gilmour E, Chalmers RJ, Rowlands DJ. Drug-induced Sweet's syndrome (acute febrile neutrophilic dermatosis) associated with hydralazine. *Br J Dermatol* 1995; **133**: 490–491.
- 3 Malone JC, Slone SP, Wills-Frank LA *et al*. Vascular inflammation (vasculitis) in Sweet syndrome: a clinicopathologic study of 28 biopsy specimens from 21 patients. *Arch Dermatol* 2002; **138**: 400–403.
- 4 von den Driesch P. Sweet's syndrome (acute febrile neutrophilic dermatosis). J Am Acad Dermatol 1994; 31: 535–535.
- 5 Chen TC, Goldstein DA, Tessler HH *et al.* Scleritis associated with acute neutrophilic dermatosis (Sweet's syndrome). *Br J Ophthalmol* 1998; **82**: 328–329.
- 6 Bulengo-Ransby SM, Brown MD, Dubin HV *et al.* Sweet's syndrome presenting as an unusual periorbital eruption. *J Am Acad Dermatol* 1991; **24**: 140–141.
- 7 Wilson DM, John GR, Callen JP. Peripheral ulcerative keratitis—an extracutaneous neutrophilic disoder: report of a patient with rheumatoid arthritis, pustular vasculitis, pyoderma gangrenosum, and Sweet's syndrome with excellent response to cyclosporine therapy. J Am Acad Dermatol 1999; 40: 331–334.
- 8 Morgan KW, Callen JP. Sweet's syndrome in acute myelogenous leukaemia presenting as periorbital cellulites with an infiltrate of leukaemic cells. J Am Acad Dermatol 2001; 45: 590–595.
- 9 Gasuddin ASM, El Orfi AHAM, Ziu MM *et al*. Sweet's syndrome: is the pathogenesis mediated by helper T cell type 1 cytokines?. *J Am Acad Dermatol* 1998; **39**: 940–943.

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# Sir,

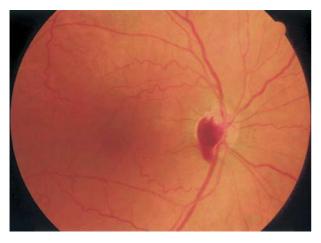
**Optic disc haemorrhage following frontal head trauma** *Eye* (2004) **18**, 216–218. doi:10.1038/sj.eye.6700593

Optic neuropathy following head trauma usually occurs secondary to contusion of the optic nerve sheath, impaled bony fragments in the optic canal, or optic nerve oedema with intracanalicular compression and orbital deformity. Rarely direct ocular trauma can produce a sufficient contrecoup or shearing force to avulse the optic nerve from the globe.<sup>1</sup> We present a case of post-traumatic optic disc haemorrhage following trivial head trauma.

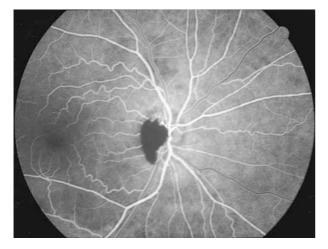
## Case report

A 66-year-old lady presented to the eye casualty complaining of decrease in visual acuity in her right eye following head trauma. The night before her presentation she banged her right forehead on the doorframe on her way indoors from the garden. She immediately developed a right periorbital bruise and was unable to open the eye. There was no associated headache or symptoms suggestive of subarachnoid haemorrhage. Next morning on waking when she tried opening her right eye, she noticed blurred vision in it. Past medical history did not suggest any systemic or ocular predisposing factors for occurrence of optic disc haemorrhage.

On ocular examination, the visual acuity in her right eye was 6/18 not improving with pin hole and 6/6 in the left eye. Right eye examination revealed a nontense periorbital haematoma, relative afferent pupillary defect, and reduced colour vision on Ishihara plates. The ocular movements were full. Rest anterior segment examination including intraocular pressures was normal. On fundus examination, there was incomplete posterior vitreous detachment and a haemorrhage covering temporal half of right optic disc (Figure 1), which was subhyaloid in location. Visual fields of right eye revealed a superior arcuate and early inferior arcuate field loss. The visual field of the left eye was within normal limits. Fluorescein angiography was normal except for blocked fluorescence at the site of optic disc haemorrhage (Figure 2). CT scan showed no evidence of intracanalicular fracture or optic nerve compression. A diagnosis of right traumatic optic



**Figure 1** Photograph showing optic disc haemorrhage covering temporal half of the right optic disc.



**Figure 2** Fundus fluorescein angiogram: arteriovenouos phase showing hypofluorescence corresponding to the optic disc haemorrhage.

neuropathy was made. She was treated with a pulse of intravenous methyl prednisolone. After 4 months following the injury, her vision is still 6/18 and there is no improvement in her symptoms.

#### Comment

Traumatic optic neuropathy is a rare but potentially devastating complication of closed head injury. In the common form, severe frontal head trauma usually results in injury to intracanalicular portion of the optic nerve, either through compression, shearing of vessels, or intracanalicular oedema. In this setting, optic nerve appears normal until optic atrophy supervenes.<sup>2,3</sup> Ocular findings described in cases of traumatic optic neuropathy include optic nerve head swelling, ischaemic optic neuropathy, and rarely partial or complete avulsion of optic nerve head.

Several cases of post-traumatic optic neuropathy have been described before. Muthukumar *et al*<sup>4</sup> reported a case of traumatic optic neuropathy in a 10-year-old boy following frontal head injury. The child suffered from optic nerve damage as a consequence to haemorrhage into the optic nerve sheath.

Lessell<sup>5</sup> presented a case series of 33 cases with posttraumatic optic neuropathy. He concluded that victims were predominantly young males, and bicycles proved the most common source of injury. A concussive or subconcussive frontal blow proved sufficient to permanently impair vision regardless of whether or not a fracture was present. Optic atrophy invariably supervened. Mechanism suggested for these injuries include ischaemia to intracanalicular segment of the optic nerve.

Brodsky *et al*<sup>2</sup> reported three cases of traumatic optic neuropathy. Clinical appearance of optic nerve in these patients was swollen optic disc with diffuse leakage on fundus fluorescein angiography. They also suggested that following blunt ocular trauma, epipapillary traction associated with delayed contraction of formed vitreous body can produce optic disc swelling and peripapillary haemorrhage in eyes with small cup less discs.

In our case, there was evidence of injury to the optic nerve in the form of optic disc haemorrhage associated with signs of optic nerve dysfunction. The patient did have small crowded discs, and it is possible that in our patient, optic disc haemorrhage occurred secondary to traumatic vitreous traction on disc vessels. However, there was no associated optic disc swelling.

Traumatic optic neuropathy with optic disc haemorrhage as the sole fundus finding has to the best of our knowledge not been reported before.

#### References

- 1 Lagreze NA. Neuroophthalmology of trauma. *Curr Opin Ophthalmol* 1998; **9**: 33–39.
- 2 Brodsky MC, Wald KJ, Chen S. Protracted posttraumatic optic disc swelling. *Ophthalmology* 1995; 102: 1628–1631.
- 3 Steinsapir KD, Goldberg RA. Traumatic optic neuropathy. *Surv Ophthalmol* 1994; **38**: 487–518.
- 4 Muthukumar N. Traumatic haemorrhagic optic neuropathy: case report. *Br J Neurosurg* 1997; **11**: 166–167.
- 5 Lessell S. Indirect optic N. trauma. *Arch Ophthalmol* 1989; **107**: 382–386.
- 6 Kothe AC, Lovasik JV. Traumatic optic neuropathy, anatomical and neurophysiological observations. Am J Optometry Physiologicaloptics 1987; 64: 938–943.

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## Sir,

# Calcification in Schwannoma of the lacrimal gland region

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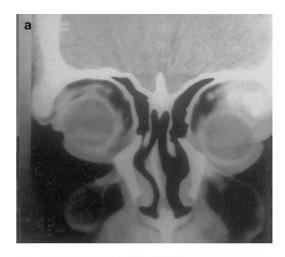
Schwannoma is a localized, encapsulated, benign nerve sheath tumour occurring anywhere along the course of a peripheral sympathetic or cranial nerve. It accounts for 1% of all orbital tumours.<sup>1</sup> Most orbital schwannomas arise from the branches of either the supraorbital or the supratrochlear nerve.<sup>2</sup> Cyst formation is characteristic of orbital schwannomas.<sup>2,3</sup> We report a case of orbital schwannoma in the lacrimal gland region which was characterized by calcification.

# Case report

A 35-year-old male presented with an increase in fullness in the superotemporal quadrant of the right eye of 10 days duration. He had noticed downward displacement of the right eye for the last 12 years. He gave no history of trauma or similar lesion elsewhere. His visual acuity was 6/6 in both eyes. Ocular movement in the right eye was restricted only in up gaze. The patient did not complain of diplopia. Hertels exophthalmometry measured 19 mm in the right eye and 15 mm in the left eye. Intraocular pressure was 16 mmHg in both eyes. Anterior and posterior segment examination was unremarkable.

On palpation, the mass was located in the superotemporal quadrant of the right orbit causing an S-shaped deformity of the upper lid. The mass measured 2 cm horizontally and 1 cm vertically. The posterior extent could not be palpated. It was firm in consistency, not compressible, and not adherent to the overlying skin. Schirmer test reading was 15 mm in the right eye and 35 mm in his left eye.

The computerized tomography (CT) scan showed a well-defined extraconal mass in superolateral quadrant of the right orbit in relation to the lacrimal gland. The mass had heterogeneous density with large chunky coarse calcification within (Figure 1). A working diagnosis of pleomorphic adenoma was made based on CT-scan findings. His preoperative haemogram, blood biochemistry, liver function tests, and urinalysis were





**Figure 1** (a) (Noncontrast) Coronal cut of CT scan showing a well-defined mass in the superolateral aspect of the right orbit with a hyperdense speck suggestive of coarse calcification. (b) Contrast enhanced CT scan of the same patient showing minimal enhancement of the lesion with dense enhancement in the centre.

within normal limits. We performed an excision biopsy through a superior orbitotomy and removed an encapsulated mass.

*Histopathology*: Gross specimen revealed a tumour mass measuring  $1.8 \times 1 \times 1.8$  cm, greyish white in colour, firm to hard in consistency and had gritty sensation on slicing. Microscopic examination showed a well-defined capsule with characteristic features of palisading of the spindle cells, regimentation, verocay bodies, and a discrete area of calcification (Figure 2). The vessel walls were thickened and hyalinized. The diagnosis of schwannoma was confirmed by immunoperoxidase stain, which was highly positive for S-100 protein.

## Comment

Peripheral nerve sheath tumours of the lacrimal fossa region are very rare. The ciliary nerves are the most

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