

The Versapulse laser (Coherent Medical Group) is a multiple-wavelength cutaneous solid-state laser system which produces light in Q-switched alexandrite or neodymium:YAG (Nd:YAG) mode for the removal of pigmented lesions and tattoo colours, and in variable pulse width frequency-doubled Nd:YAG mode for the treatment of a variety of superficial vascular conditions such as port-wine stains and facial telangiectases. A chilled tip cools the skin during treatment, reducing epidermal thermal damage, whilst the variable pulse width allows specific targeting of different-diameter blood vessels.<sup>4</sup> At 532 nm, the wavelength produced in frequency-doubled Nd:YAG laser mode, there is reduced scatter and melanin absorption of the laser energy within, and therefore increased transmission through, the epidermis with subsequently increased energy uptake by the target vessel wall.

Steroid creams and ointments are used on the face with great care for fear of their side-effects; their long-term use and the more potent preparations are generally avoided whenever possible. Although Betnesol ointment is formulated for ocular use it does in fact contain 0.1% betamethasone, which is classified as a potent steroid, and the same caution should therefore be taken regarding its long-term use as with other dermatological steroid preparations.

#### References

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Sir,

#### An unusual case of ocular self-injury

Self-inflicted ocular injury is uncommon.<sup>1</sup> It ranges from mild forms such as chemically or mechanically induced conjunctivitis seen in malingering or mental retardation to the most extreme form of self-enucleation. In adults, more severe attempts at ocular self-damage are usually associated with acute psychotic states.<sup>1</sup> An unusual case of self-inflicted eye injury is reported involving self-introduction of a foreign body into the orbit following use of recreational drugs.



Fig. 1. The left eye on presentation.

#### Case report

A 25-year-old white man presented to the casualty department following an episode of recreational drug use, which included marijuana, amphetamines and cocaine. He relayed a history of pushing a ring into his left eye earlier that day and insisted that the ring was still present within the eye. He apparently had to do this because he felt he could not breathe, and only by pushing the ring into his eye could he 'get oxygen'.

On examination the patient was in an agitated state. It was not possible to visualise the anterior segment because of tense eyelids and severe conjunctival swelling

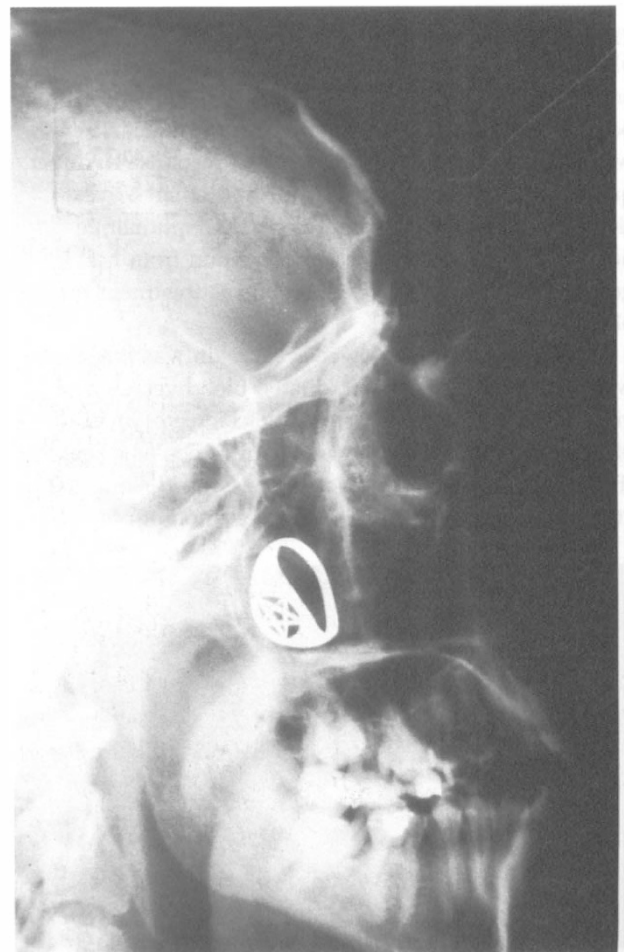


Fig. 2. Skull radiograph showing a signet ring in the left maxillary sinus.

(Fig. 1); however, there were no external skin injuries. There was no light perception through the lids. Both a skull radiograph (Fig. 2) and a CT scan were performed. They clearly showed that a metal signet ring was sitting in the posterior part of the maxillary sinus. There was marked haemorrhage, surgical emphysema and enophthalmos with a possible fracture of the roof of the maxillary sinus, but no fracture of the anterior wall of the maxillary sinus was seen on CT. He underwent examination under anaesthesia and removal of the foreign body by the maxillofacial surgeons via the mouth through the gums (Caldwell-Luc approach). With the exception of grossly oedematous conjunctiva, the eyeball was otherwise normal. Four weeks later there was complete resolution of the periorbital and conjunctival edema. The visual acuity remains NPL in an enophthalmic eye and the optic disc is pale. Visual field assessment of the right eye and psychiatric evaluation were normal, and no further attempts at self-harm have occurred.

#### Comment

Drug-induced psychosis is not common and can result in self-mutilation.<sup>1-3</sup> Self-ocular injury has been described in such settings.<sup>3,4</sup> In the present case the patient insisted that he introduced the ring to relieve a sense of imminent suffocation. The local soft tissue and bony destruction together with the final destination of the ring give some indication of the forces exerted. Self-introduction of foreign bodies into the sinuses is exceedingly rare.<sup>5</sup> In this case the likely route of entry of the ring into the maxillary sinus was through the inferior conjunctival sac, through the orbital floor, and into the posterior maxillary sinus. The cause of blindness was presumed to be secondary to compression of the optic nerve within the optic canal as a result of oedema and haemorrhage.

Two other unlikely possibilities, which have not been reported before, exist. The ring, having been pushed through the inferior orbital floor into the posterior part of the maxillary sinus, then disrupted the orbital floor of the maxilla and caused primary transectional damage to the intraorbital portion of the optic nerve. The other is that the ring may have been introduced into the maxillary sinus through the anterior wall. The force involved and subsequent bleeding may have caused the maxillary sinus to explode upwards into the orbital cavity and cause compression of the optic nerve secondary to haemorrhage and oedema. The acute treatment in this case would then be to perform an immediate lateral canthoplasty.

However, it is more likely that neural dysfunction occurred secondary to compression within the optic canal as a result of oedema and haemorrhage. In this instance treatment options include high-dose steroid treatment and optic nerve sheath decompression.<sup>6</sup> No treatments have been proved effective in a randomised controlled trial, but patients treated with corticosteroids or a combination of corticosteroids seem to have a better visual prognosis.<sup>7,8</sup>

The patient's visual acuity remains NPL in that eye. In a previous case of attempted autoenucleation, good recovery of vision was reported.<sup>9</sup> Visual field assessment of the contralateral eye is advised because of the potential for involvement of the optic chiasm in such a destructive process.<sup>3</sup>

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Sir,

#### Reduced corneal sensation and severe dry eyes in a child with fetal valproate syndrome

*In utero* exposure to sodium valproate is linked with a characteristic facial phenotype in which ophthalmic signs are a prominent feature.<sup>1-3</sup> We extend previous observations by reporting here an infant with the 'fetal valproate syndrome' (FVS) associated with severe dry eyes.

#### Case report

The patient was born via normal vaginal delivery after a 40 week pregnancy which was uncomplicated except for maternal anticonvulsant therapy. Her mother, aged 25 years, started having grand mal epilepsy aged 11 years and was initially treated with phenobarbitone. Due to