Self-enucleation and psychosis

Nicholas P Jones

Abstract
Four cases of self-enucleation are reported. Self-induced ocular mutilation is uncommon. Self-enucleation is rare and is specifically associated with paranoid delusions, either as a result of a drug-related toxic psychosis or in the functional psychoses, especially schizophrenia. An association with solvent abuse is reported. Such patients use self-enucleation as a form of parasuicide and may mutilate themselves in other ways. In the management of such patients close co-operation between ophthalmologist and psychiatrist is important, as further self injury, including suicide is common.

Self-inflicted ocular injury is uncommon. In its mild forms, such as chemically or mechanically induced conjunctivitis, it may be a manifestation of malingering or neurosis. The problem is occasionally encountered in children, where mental retardation is usually the underlying problem, but congenital corneal anaesthesia may also be seen. In adults more determined attempts at ocular damage are usually associated with acute psychosis and rank with self-poisoning and other severe self-mutilation as forms of parasuicide. The most extreme ocular mutilation is self-enucleation. Four such cases are reported, and some consistent features are discussed.

Case reports

CASE 1
A man aged 24 years presented after having attempted enucleation of the left eye. On examination the eye could not perceive light and was proptosed and soft, with a total hyphaema (Fig 1). The conjunctiva was detached close to the limbus through 360° and was haemorrhagic. No scleral rupture was visible. The eye was capable of small movements in each cardinal position of gaze. The right eye was uninjured, had a visual acuity of 6/5, and gave a normal direct pupil reaction but no consensual reaction. There was no visual field defect on this side.

The enucleation had been attempted by inserting his fifth finger through the lateral fornix and pulling forwards. He believed that 'I would not go to heaven unless I took it out', and 'I wanted to save my soul'. He said that 'the devil was after me' and he described both auditory and visual hallucinations which had instructed him to remove his eye. He abused amphetamines and marijuana regularly and lysergic acid diethylamide (LSD) occasionally.

The patient was kept under constant nursing supervision because he had expressed suicidal tendencies. A diagnosis of drug induced psychosis was made and he was treated with thioridazine. The left globe and orbit were explored. A large scleral rupture was located superotemporally at the equator, with uveal prolapse. The rectus muscles were intact, but the optic nerve was completely avulsed. The eye was enucleated. An ocular prosthesis was fitted satisfactorily but two replacements were required because it was lost during subsequent psychotic episodes. His course was stormy and he committed suicide three years later.

CASE 2
A woman aged 43 years was found at home following attempted bilateral self-enucleation the previous day. She was a known schizophrenic but had not required medication for the preceding six months. She had a previous history of self-mutilation and had twice attempted to circumcise herself. She said, 'I have sinned against the Lord', and 'God told me to cut out my eyes' so 'I have punished myself' by doing so. In the almost completely successful attempt she had used a variety of sharp household instruments, including two wood chisels and kitchen and craft knives. This arsenal was brought to the hospital by an ambulance man, together with the left enucleated globe (Fig 2) in the hope that the latter was suitable for corneal donation. It was not.

On examination the right globe was present but could not perceive light. There was a full-thickness upper eyelid laceration, and the disrupted globe and orbital fat were prolapsed through the lids. The left globe was absent and the lids were closed by substantial eyelid haematoma (Fig 3).

The patient was admitted and treated with trifluoperazine. A CT scan demonstrated air in both orbits and in the preoptic and interpeduncular cisterns. Exploration of both orbits was performed under general anaesthesia. On the left side the conjunctiva was closed. On the right side there were extensive eyelid lacerations. The rectus muscles could not be located. Two full-thickness scleral lacerations were found inferotemporally, with vitreous loss and uveal prolapse. The anterior chamber was shallow and

Figure 1: Case 1. Appearance on presentation.
contained substantial hyphaema. The pupil was fixed. The perforating injuries were repaired. Three days after surgery anterior segment necrosis supervened and the globe was enucleated.

The patient gained increasing insight within days, but some affective dissociation persisted. Ocular prostheses were fitted, with a good cosmetic result. No further attempts at self-mutilation have occurred.

CASE 3
A man aged 18 years perforated his left globe with a pencil and enucleated the eye with his fingers, completing the extraction with an ornamental kukri, which he then used to stab himself in the left hypochondrium. His father prevented him from sustaining more than a superficial laceration of the abdomen but entered the room after the enucleation had taken place. The patient was regularly taking amphetamine, cannabis, and LSD. He was also a frequent solvent abuser and on the night in question had been inhaling glue vapour. There was no previous history of self-mutilation.

On examination the left globe was absent. The right eye was undamaged and its visual field and pupil reaction were normal. After some persuasion the patient admitted that 'there was too much evil in the world' and that 'there are good eyes and evil eyes', so 'if I don’t have the bad eye, I won’t see any evil'. Parenteral penicillin and tetanus toxoid were administered, but the patient then refused any further parenteral treatment and would not contemplate surgery. Topical and oral antibiotics were administered. The attending psychiatrist thought that the self-mutilation had occurred as a result of delusions created by the use of drugs and solvent inhalation. Antipsychotic medication was not required. Satisfactory spontaneous healing of the orbit occurred and a prosthesis was successfully fitted. Insight into the effects of solvent abuse led to the cessation of this habit and there has been no further attempt at self-injury.

CASE 4
A 40-year-old man was committed to psychiatric care following a diagnosis of schizophrenia. He was a heroin addict, also abusing cannabis and cocaine. The palm of his left hand had been tattooed with the eye of Horus (Fig 4). He referred to this as his 'evil eye'.

On examination the right eye was absent. In a period of depression some months previously, during which he felt suicidal, he had removed the eye with his fingers, but had swallowed it as he 'didn’t want to lose it'. Medical attention had not been sought, but he had given the socket regular lavage with saline. The socket was clean and the conjunctiva was well healed, allowing a reasonable inferior fornix. A prosthesis was fitted. No other self injury had occurred.

Three years after the self-enucleation of his first eye he attempted to remove his other eye with his fingers. He subluxed the globe but did not complete its removal. He voluntarily attended his psychiatric unit immediately, where the conjunctiva was noted to be chemosed and haemorrhagic, but there was no proptosis. The visual acuity was normal, as were the pupil reactions and visual field. There was no fundal abnormality. Some insight was expressed, but he could not give reasons for the attempted removal of his eye. He continues on depot pimozidine in the management of his schizophrenia.

Discussion
Self-enucleation represents one end of a spectrum of severity in ocular self-injury. But certain common features characterise the act of removal of the eye which are not seen in less
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severe forms of deliberate ocular damage. The condition is rare. The first documented case occurred in 1836, and the term ‘oedipism’ was later suggested in deference to the Sophoclean character in the play Oedipus Rex, who had removed his own eyes in a state of guilt following the suicide of his mother. Other cases have been reported in the medical literature and most have been reviewed by Krauss et al. The term has occasionally been widened to include any form of ocular self-mutilation but should properly be confined to self-enucleation.

In previous reports of self-enucleation the almost constant association with functional and drug induced psychosis has been made. Two of the above patients were schizophrenic and three were abusing hallucinogenic drugs. One was probably suffering delusions induced by solvent inhalation at the time of self-enucleation. In cases of severe ocular self-injury the probability of drug involvement should be considered, and management modified accordingly.

The first two patients in this report described the need for expiation of guilt by the removal of an organ perceived as evil. The perception of an eye as intrinsically evil, or conveying evil images from an evil world, is a common thread in such instances, which is also exemplified in case 3. The avulsion of the offending organ does not necessarily produce the desired equanimity, and it is essential that such patients are closely supervised in an attempt to prevent further expressions of parasuicide, or suicide itself.

Completed digital self-enucleation is remarkable in that it tends to cause little haemorrhage, conserves ample conjunctiva for the formation of a lower fornix, and is followed by uneventful healing, whether the conjunctiva is sutured or not. There have been no serious problems in the above cases in the fitting of prostheses. Blunt avulsion of the eye may involve a great length of optic nerve, and the contralateral visual field may be at risk.

Management of patients following self-enucleation must involve close co-operation between ophthalmologist and psychiatrist. Patients may not understand the implications of or may refuse treatment, and it may not be possible to insist on it. A psychiatrist considered that neither cases 1 nor 2 were fit to consent to surgery, and relatives consented on their behalf. A psychiatrist considered that in case 3 the underlying diagnosis of drug abuse, in the absence of an overtly psychotic state after admission, did not justify the use of Section 30(2) of the Mental Health Act 1983 to enforce treatment, even though the orbit had not been explored and repaired. Further self-injury is a real risk, as is shown by cases 1 and 4. Constant nursing supervision is necessary during inpatient ophthalmic treatment, and lengthy inpatient psychiatric care may subsequently be needed.

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