



Oedipism – case report and review

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ABSTRACT

Oedipism is the term describing autoenucleation – the most dramatic form of eye self-mutilation. It belongs to so called major form of self-injurious behaviors as well as wrist-slashing, auto-castration or head banging. In the majority of cases it occurs during acute or chronic psychoses with accompanying visual and/or auditory hallucinations. We present a case of a 32 year-old man with diagnosed bipolar illness, who pulled out his eye during a psychotic episode with accompanying both visual and auditory

disorders. At Emergency Department urgent laboratory tests, CT examination of the head and facial skeleton, ophthalmological and neurological consultations were performed. Because there were no life-threatening complications, after orbital wound surgical dressing he was transferred to the psychiatric hospital to estimate and start adequate treatment. Referring to this case we have prepared a review on the self-enucleation problem.

KEY WORDS: oedipism, self-mutilation, psychoses, self-enucleation.

PATHOPHYSIOLOGY

Mental disorders can result in self-injurious behaviors. The term “self-mutilation” describes physical injuries inflicted by an individual to various parts of the body without any conscious intention for suicide. It occurs as a single event or as repeated incidents. Self-mutilations are classified into superficial (biting lips, chewing fingers, burning skin, pulling hairs/eyelashes), stereotypical (repetitive fixed behavior, commonly in institutionalized retards) and major (auto-castration, head banging, wrist-slashing, self-enucleation) subtypes [1-4]. We present the case of oedipism – the most dramatic self-inflicted eye trauma.

CASE REPORT

A 32-year-old man was brought by the ambulance to the Emergency Department with suspicion of self-enucleation. He was found at the bus-stop with a recent wound of the left orbit. Medical interview was difficult because he could answer clear only easy questions. All the time he was losing the plot, was distracted, answers for more complicated questions were inadequate. On medical interview he admitted that he had long time history of bipolar illness. Recently (troubles with the girl-friend) he had interrupted medical treatment. At the bus-stop the woman from the billboard had required him to gauge out his eye. Laboratory tests, computed tomography (CT) of the head and facial skeleton were per-

formed. Urgent ophthalmological and neurological consultations were recommended.

Laboratory tests, besides slight leukocytosis, were within normal limits. No alcohol in blood samples was found.

CT imaging revealed small intracranial bleeding (small amount of blood was described in subarachnoid space and cerebral sulci of the temporal part, in cisterns of the base of the brain, in subtentorial reservoirs of the brain, along anterior surface of the brain bridge and medulla oblongata, in the 3rd ventricle of the brain and along anterior part of the brain sickle) and slight cerebral oedema (temporal part). Orbital imaging unveiled at the left side: no eyeball and optic nerve, orbital emphysema, orbital fat with hematomas. No changes in orbital bones (Figure 1).

Ophthalmological examination revealed:

- right side: eyeball and orbit without any pathologies;
- left side: lack of the eyeball.

Rests of the tissues (conjunctiva, muscles), orbital fat and blood clot in the palpebral fissure. Slight tissue bleeding in orbit cavity.

At the end of the examination it turned out that the patient had hidden the eyeball in his pocket (Figure 2).

After neurological consultation angio-CT was performed: any aneurysms and stable cerebral changes were shown; patient didn't necessitate neurological intervention.

Under general anesthesia the orbital wound was surgically dressed. Antibiotics were given intravenously. Follow-up CT did not reveal further changes.

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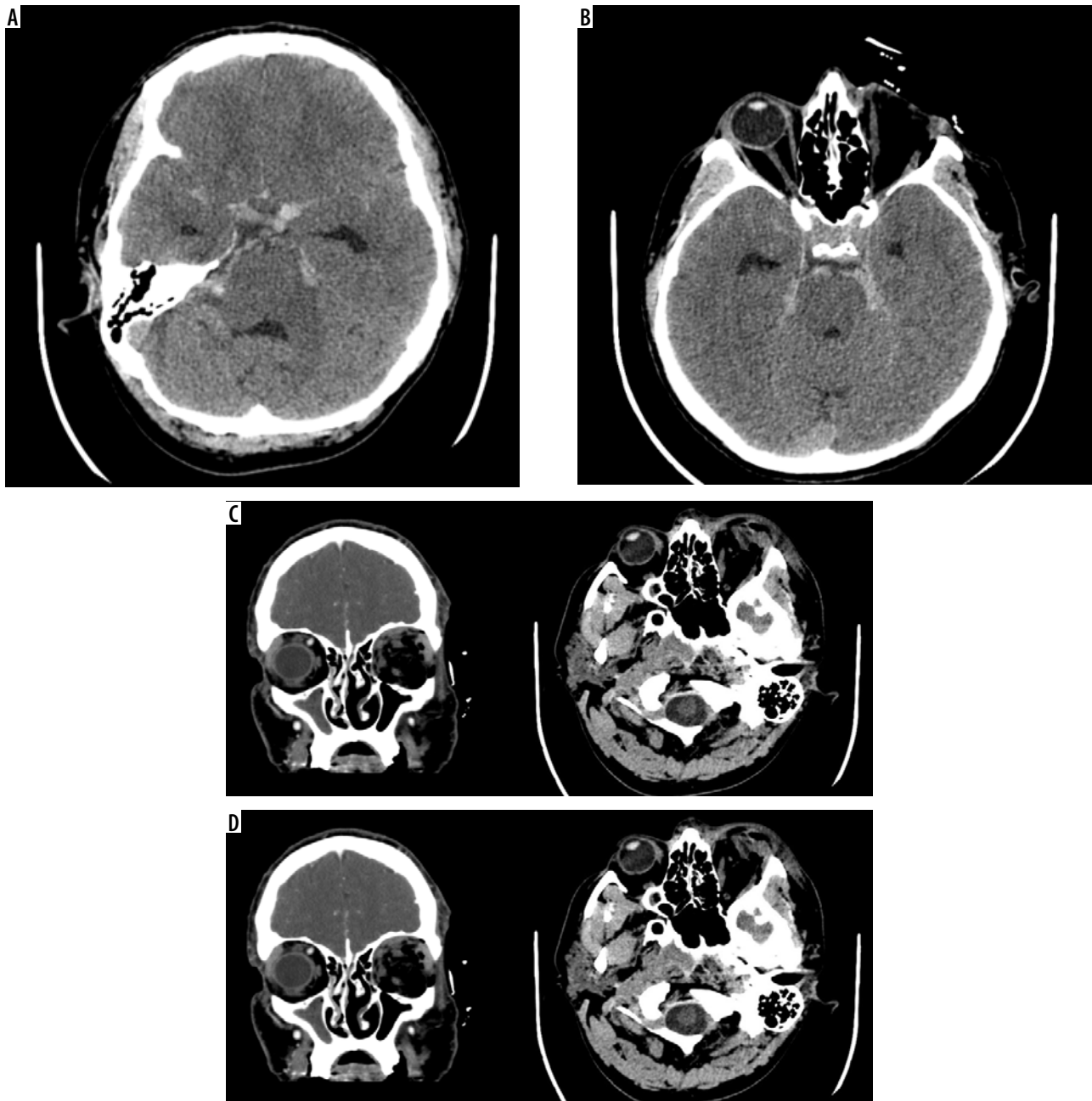


Figure 1. Oedipism: computed tomography showing: lack of the left eyeball, bleeding both in subarachnoid space and in spaces and structures of the brain

Patient was transferred to the psychiatric hospital to undertake the necessary treatment.

DISCUSSION

Self-enucleation was described in 1846 by Bergman, but in 1906 Blonel was the first who – based on the Sophocles' tragedy – proposed the term "oedipism" [2, 5, 6]. It is difficult to estimate how often oedipism occurs but some studies have assessed a prevalence rate of 2.8 to 4.3 per 100,000 in the population [7, 8]. The majority of cases are connected with acute or chronic psychoses. They were described with a variety of disorders: most common paranoid schizophrenia and drug/alcohol-induced psychosis were noted. Obsessive-compulsive disorder, profound affective disorder (especially

psychotic depression), post-traumatic stress disorder, Munchausen syndrome, borderline personality disorder, organic illnesses (encephalitis, neurosyphilis) and brain lesions were also interrelated with self-enucleation. In the pediatric group they are usually connected with mental retardation syndromes such as Lesch-Nyhan, Down or Gilles de la Tourette. Self-inflicted eye injuries usually occur during incidents of visual or auditory hallucinations. Moreover, autoenucleation is at a higher incidence in young to early middle-aged man [2, 5, 6, 9-17]. In this case young man with a long-time bipolar illness gouged out the eye during both auditory and visual hallucinations.

It is difficult to understand why patients subject themselves to such horrible injury. However, it has turned out that



Figure 2. Oedipism: self-enucleated eyeball with about 1.5 cm optic nerve

they have historical and cultural influences that seem to be a kind of catalyst to the act of autoenucleation [9]. The eye is a well-known mystical, religious and sexual symbol in history and across cultures. In literature we can find it as “the gateway to the soul”, as symbol of protection from evil but also as evil, reflecting evil-minded thoughts [2, 9].

In ancient mythology we can find samples of sacrificing the eye to gain other reward. The Norse Odin sacrificed one eye to get access to The Spring of Mimir – spring of wisdom and knowledge, the Egyptian Horus lost eye in a battle to get it back with special powers [2, 9]. In Christian hagiography we can find three saints (st. Lucia of Syracuse, st. Tridiana, pious Madena) using self-blinding as a tool in a fight with the sin [2].

There are two most popular sources of inspiration for autoenucleation: the story of Oedipus and the Bible, the Book of Matthew [2, 6, 9]. Oedipus fulfilled the prophecy of killing his father and marrying his mother. When it was discovered, he gouged out his eyes out of shame. This story may inspire autoenucleation in patients that reported guilt due to incestuous relations. The Oedipal conflict of sexuality may also evince itself as guilt toward homosexual impulses [2, 18].

Several biblical verses describe self-mutilation as metaphoric acts of contrition or sacrifice. The most salient parable is found in the Book of Matthew “If the right eye offends thee, plug it out and cast it from thee: for it is profitable for thee that one of thy members should perish and not that thy whole body should be cast into hell” (Matthew 5:29). Oedipism is a literal interpretation of the text [2, 9, 19, 20].

Alternative theories suggest autoenucleation is a symbolic autocastration [2, 9, 21]. Some secular patients believe, that by plucking their eyes out, they would be transferred to the place, where they would be cured of their diseases and then recover their eyesight [9, 22]. Whatever the cause, successful self-injury may be followed by anxiety relief, unsuccessful – leads to frustration and repeated attempts [2, 3, 10].

Autoenucleation is commonly performed with fingers, though the use of sharp scissors and knives have been reported [2, 5, 24, 25]. The attempt may be unilateral, though bilateral oedipism is well documented in literature [2, 5, 26]. Optic nerve avulsion is connected with tearing extraocular muscles and blood vessels [2, 26]. The ophthalmic artery severance is responsible for bleeding: orbital, if the severance occurs anterior to the optic foramen or – if it occurs in the posterior part of the artery – subarachnoid haemorrhage evolves [2, 5, 27, 28]. In literature we can find other complications of autoenucleation: suppurative meningitis, cerebro-spinal fluid leak, pituitary gland dysfunction, orbital phlegmon, contralateral hemianopsia (chiasmal injury). Some of them, as well as subarchnoid haemorrhage, are potentially life-threatening [2, 5, 26-28]. Unsuccessful self-enucleation may lead to panophthalmitis (scleral rupture) or to visual failure due to penetrating injury, orbital compression (haemorrhage, oedema) or retinal contusion [2, 26, 28]. Our patient used fingers to pull out his eye and next he hid it in a pocket.

Patient after successful or unsuccessful autoenucleation is deeply disturbed and needs immediate hospital admission. Life-threatening complications (e.g. blood loss, subarachnoid haemorrhage) require immediate resuscitation. Urgent ophthalmological, psychiatric and neurological assessment are necessary.

Ophthalmological evaluation is important to evaluate the scope of surgical repair. If the eye is irretrievably damaged, prompt surgical removal reduces the risk of sympathetic ophthalmia. Sometimes (presence of orbital compression) high-dose systemic steroids (considering their role in exacerbating psychoses) are used. Antibiotics are routinely given as a preventive treatment. Evaluation of the follow eye is necessary because of potential trials of bilateral self-inflicted eye injuries [2, 24, 26, 27]. A comprehensive neurological consultation is required to recognize any signs of meningism, suggesting subarachnoid haemorrhage. Neuroimaging tests (e.g. computed tomography – CT) are performed to visualize it [2, 27]. In presented case – despite changes in CT examination – neurological consultation has not shown reason to urgent neurosurgical treatment. Topical wound was dressed. No signs of injury of the other eye were found in ophthalmological examination.

Psychiatric consultation allows to understand the psychoses, that have driven the patient to such an extreme attempt, and to dispose patient to undertake immediate treatment. In the therapy neuroleptic medications and/or antidepressants are used, but close observation is mandatory to ensure there are no further self-destructive trials. If necessary, detoxification of any substance abuse is performed. Moreover,

both patients and their families require help in coming to terms with extreme religious and/or sexual delusions that were the reason of the oedipism. All of them need long-term follow-up. Hospitalization is continued until the patient's mental state and ophthalmological condition are stable [2, 27]. Our patient had diagnosed bipolar illness and the described situation resulted as a consequence of both hiatus in taking his medicines and personal problems. He was transferred to the psychiatric hospital; the diagnosis was confirmed and he left there to firm up and start adequate treatment.

CONCLUSIONS

Oedipism is a rare but the most dramatic form of self-inflicted injuries, found mainly in acutely psychotic patients. Treatment of it should consider the underlying cause, whether biological or psychiatric. To ensure an adequate care for these patients, close cooperation between specialists (ophthalmologist, psychiatrist, neurologist, physicians, neurosurgeons) is required.

DISCLOSURE

The authors declare no conflict of interests.

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