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Oedipism: psychosis-induced self-enucleation

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Abstract

Background: We report a case of complete unilateral self-enucleation in a schizophrenic patient.
Case presentation: A young male who defaulted schizophrenia treatment presented to the emergency department after self-enucleation of his right eye**.** He was brought in by his father, together with the intact enucleated globe packed in ice. On examination, he was agitated. The right eye socket showed periorbital oedema, ecchymosis, and no active bleeding. Horizontal laceration wounds were found over both canthi. Extraocular muscles were well-attached to the globe except for the superior and inferior oblique muscles. Serum and urine toxicology reports were negative. Computed tomography found no evidence of intracranial haemorrhage. He was treated as schizophrenia in acute psychosis.
Conclusion: Self-enucleation is a rare and serious act of self-mutilation as a result of untreated psychosis. It requires comprehensive care and multidisciplinary management to prevent further self-injury.

Keywords: oedipism, psychosis, schizophrenia, self-enucleation

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Oedipisme: enukleasi kendiri yang disebabkan oleh psikosis

Abstrak

Latarbelakang: Kami melaporkan kes enukleasi yang dilakukan sendiri oleh pesakit skizofrenia.
Pembentangan kes: Seorang lelaki muda yang ingkar rawatan skizofrenia, mengemukakan diri kepada jabatan kecemasan selepas enukleasi sendiri mata kanannya berikutan halusinasi pendengaran. Dia dibawa masuk oleh bapanya, bersama-sama dengan bola mata yang dibungkus dengan ais. Semasa pemeriksaan, dia amat gelisah. Terdapat kesan bengkak dikeliling kawasan mata kanan dengan lebam dan kehadiran luka mendatar pada kedua-dua hujung kelopak mata. Soket mata kanan tidak mengalami pendarahan aktif. Mata kiri normal. Bola mata yang terkeluar itu masih sempurna dengan tangkai saraf optik terputus sepanjang 36 mm. Semua otot masih berada dikeliling bola mata kecuali otot oblik superior dan inferior. Laporan toksikologi serum dan air kencing adalah negatif. Imbasan CT otak dan orbit mendedahkan ketiadaan bola mata kanan tanpa bukti pendarahan intrakranial. Pesakit dirawat sebagai kes skizofrenia dalam psikosis akut.
Kesimpulan: Enukleasi diri adalah perbuatan mencacatkan diri yang agak jarang berlaku dan serius akibat psikosis yang tidak dirawat. Ia memerlukan penjagaan menyeluruh dan pengurusan pelbagai disiplin untuk mengelakkan kecederaan diri yang lebih teruk.

Kata kunci: auto-enukleasi, enukleasi diri, oedipisme, psikosis, skizofrenia

Introduction

Self-enucleation, also known as oedipism or auto-enucleation, is a self-inflicted extraction of the globe in which the globe is completely removed from the orbit.[1] Most cases are associated with untreated psychiatric illness, particularly schizophrenia or substance-induced psychosis.[2] We report a case of unilateral complete self-enucleation in a schizophrenic patient in an acute psychosis attack.

Case report

A 23-year-old, single, unemployed Chinese male who defaulted schizophrenia treatment, presented to the Emergency Department after self-enucleation of the right eye following commanding auditory hallucination. He was brought in by his

father, together with the enucleated globe packed in ice. He had been found by his father at 5.30 am, sitting on the bed's edge with blood pouring out from his right socket and the enucleated eyeball on the floor. No sharp objects were found nearby.

The patient had history of visual and auditory hallucinations for the past year with 1 episode of failed self-mutilation 6 months prior to the incident. His family believed it was due to spiritual disturbances and sought religious help in addition to psychiatric therapy. He was diagnosed as having schizophrenia and was prescribed antipsychotics, which he had defaulted 3 months prior to the incident. The family cited non-compliance and the patient's refusal to take medication orally, deciding to continue with the spiritual therapy only.

Prior to this, the patient had no known medical illnesses or substance abuse. He was a non-smoker, non-drinker, and had no history of recreational drug use. He possessed a degree in finance but had not been employed yet.

On examination, he was found to be agitated with irrelevant, incoherent speech in high tone and inappropriate affect. His mental status examination revealed intact higher mental function but preoccupied with religious delusions and commanding auditory hallucinations. He exhibited repetitive speech, chanting religious scripts with occasional burst of tears. He was calling for Jesus to save him while proclaiming

Fig. 1. Patient's right orbit demonstrating minimal orbital bleeding and orbital tissue prolapse.

Fig. 2. Patient's right globe post-enucleation showing absence of conjunctival tissue and intact recti from all 4 muscles.

that he was the son of Jesus. Otherwise, his systemic physical examination was unremarkable with normal vital signs and hydration status. Neurologic examination and cranial nerve examinations were also unremarkable.

On ocular examination, there was right periorbital oedema with ecchymosis and presence of horizontal laceration wounds over both canthi (Fig. 1). The right eye socket had no active bleeding. The left eye was unremarkable with visual acuity of 6/6 as well as normal anterior segment and fundus examination. The enucleated globe was intact and not disorganized (Fig. 2). The overlying conjunctiva was injected with mild subconjunctival haemorrhage, Tenon's capsule was still attached to the globe, and the cornea was clear with a large central epithelial defect. The total length of the severed optic nerve stalk was 36 mm (Fig. 3). The extraocular muscles were well-attached to the globe except for the superior and inferior oblique muscles, which had been avulsed close to their insertions.

He was admitted to the psychiatric ward for schizophrenia in acute psychosis and was restrained and put on antipsychotic medications. During hospitalization, the patient still had hallucination attacks and expressed the desire to self-harm, such as enucleating the other eye, biting off his tongue, and suicidal thoughts. He was subjected to a few sessions of electroconvulsive therapy.

Fig. 3. The total length of the severed optic nerve was 36 mm.

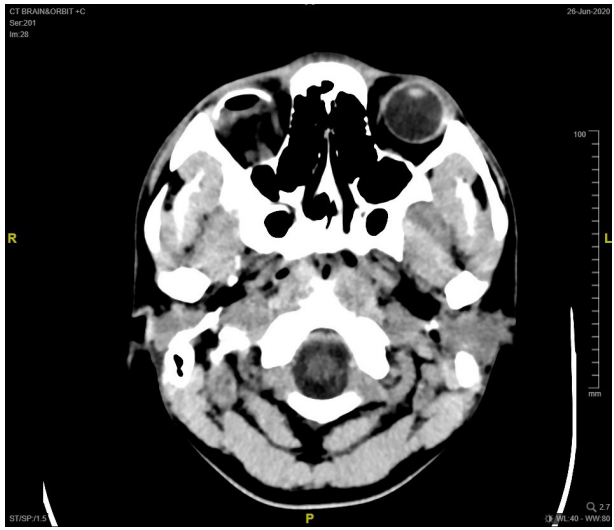

Fig. 4. Computed tomography of the brain and orbits, revealing the anophthalmic socket of the right eye with no evidence of abnormal leptomeningeal enhancement or intracranial collection.

For ophthalmological management, he was commenced on intravenous ceftriaxone for infection prophylaxis and given daily Jelonet dressing. A conformer was placed inside the right eye socket. Contrasted computed tomography (CT) of the brain and orbit was performed as the patient developed high-grade fever despite intravenous antibiotics. It revealed the right anophthalmic socket with no evidence of leptomeningeal enhancement or intracranial collection (Fig. 4).

The patient was discharged after 49 days of hospitalization. At the time of writing, 8 months have passed since the incident and the patient is still under psychiatric follow-up. He no longer shows symptoms of psychosis and is currently employed as a clerk in a small company. Four months after the incident, he underwent anophthalmic socket reconstruction with dermis fat graft. Future plans include mental rehabilitation and ocular prosthesis fitting once the eye wound heals properly.

Discussion

Self-enucleation or auto-enucleation, is one of 3 main types of major self-mutilation, in addition to upper limb amputation and penile castration.[3] It is also called oedipism, which is depicted in European mythology and the first case was reported in 1846.[4] The incidence of self-enucleation is rare, about 1:30 million people per year, while estimated prevalence is reportedly between 2.8 to 4.2:100,000.[5-7] It is a serious ophthalmologic and psychiatric emergency that requires prompt

attention and collaboration due to its severe ophthalmic and possibly lethal neurological complications.[6,7]

Compulsory hospital admission is mandatory.[6-8] In Malaysia, the Mental Health Act of 2001 enforces treatment and mandatory admission in view of the risk of serious harm from mental disorders, despite refusal for admission by family members.[3,9] Patients should be thoroughly reviewed in the resuscitation room in the emergency department prior to ward admission.[10] Initial ophthalmologic management should be comprehensive with thorough wound visualization and immediate check for active bleeding from the orbit.[8,11] Direct pressure is usually sufficient to achieve adequate haemostasis in cases of active bleeding.[8,11] Wound irrigation, suturing, and repair as well as instillation of a topical antibiotic is often warranted.[8,11]

A complete history should be obtained from the patient or family members, including any drug ingestion or neurologic symptoms.[8] A meticulous neurologic examination, including mental status examination, should be performed to look for evidence of meningismus or focal neurologic deficits.[11] Confrontation visual field examination and Goldmann visual field examination of the uninvolved eye should be performed to exclude chiasmal injury that leads to contralateral hemianopia.[8]

Neuroimaging, such as computed tomography of brain, should be considered, especially in patients presenting with neurologic deficits to exclude complications such as meningitis, panophthalmitis, cerebrospinal fluid leakage, cerebrovascular accident secondary to vasospasm, internal carotid or ophthalmic arteries aneurysm, and subarachnoid haemorrhage secondary to rupture of ophthalmic artery.[11] In our case, meningitis was suspected; however, CT of the brain and orbits was normal. A prophylactic dose of intravenous ceftriaxone was started to prevent a local infection that could spread to the brain, causing meningitis.[6]

Initial laboratory investigations should include coagulation profile and platelet count to exclude a bleeding diathesis.[8] Serum and urine toxicology screen are useful in diagnosing drug-induced psychosis.[4]

Psychiatric assessment and suicide precautions are mandatory.[8] Psychiatric management usually involves robust pharmacotherapy with antipsychotics and tranquilizers, inpatient psychiatric care with constant nursing supervision, and may need electroconvulsive therapy in cases refractory to treatment.[9] Physical restraints, which include the application of fingerless mittens and arm restraints, were utilized in our patient who was acutely agitated to prevent further self-injury like enucleating the other eye or suicidal attempts.[12]

Refusal of treatment and lack of awareness among the patients and family members are the main barriers to treatment.[11] In such cases, mental health legislation is vital to enforce treatment.[3] In our case, lack of awareness and refusal of treatment were the main factors causing worsening of his psychosis which led to the self-enucleation. The patient's family members need to be educated about

the illness and also undergo psychological counselling.[7] Mental health awareness campaigns and support groups play a vital role to enhance public awareness regarding the importance of treatment.[12]

Long-term goals include mental rehabilitation as well as prosthesis fitting. These patients often require lifelong pharmacologic control of their psychoses in order to prevent further self-mutilating behaviour. Family support plays a vital role in mental rehabilitation.

Conclusion

Self-enucleation is a rare and serious act of self-mutilation as a result of psychosis commonly from untreated schizophrenia. It requires comprehensive care and multidisciplinary management to prevent further self-injury.

Declarations

Informed consent for publication
The patient and a family member provided written informed consent for the publication of the clinical data and images contained in this report.

Competing interests
None to declare.

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