

Pediatric self-inflicted eye trauma due to a major depressive disorderAmr Mounir¹, Mohamed Gamal Elghobaier², Abdelrahim Abdrabou Sadek³, Amr Ahmed Othman⁴

¹ MD, Lecturer of Ophthalmology, Department of Ophthalmology, Faculty of Medicine, Sohag University, Sohag, Egypt

² Consultant of Ophthalmology, Egyptian Police Hospitals, Cairo, Egypt

³ Assistant Professor and Head of Neurology and Psychiatry Unit, Department of Pediatrics, Faculty of Medicine, Sohag University, Sohag, Egypt

⁴ Lecturer of Pediatric Neurology and Psychiatry, Department of Pediatrics, Faculty of Medicine, Sohag University, Sohag, Egypt.

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Abstract

Self-inflicted eye trauma is a serious form of self-harm as it may lead to irreversible visual disability. Diagnosing self-inflicted ocular injuries, in all its forms, can be quite challenging. In this report, we are presenting a 5-year-old girl presented to Sohag University Outpatient Clinic with a history of repeated attacks of bilateral eye redness with blood-tinged strands removed from her eyes. After ocular examination, inferior bulbar conjunctival injection with blood-tinged strands were found. After careful examination of the strands, it was discovered that they were actual threads of cloth due to self-inflicted eye injury. Following psychiatric consultation, the patient was diagnosed as having a major depressive disorder. The case was subject to pharmacological and psychotherapeutic treatment, and showed significant improvement within two months of starting treatment as regard to depressive symptoms and self-injury behaviors. Although self-inflicted ocular injuries due to pediatric mood disorders are rare, it should be suspected in any case of unexplained chronic conjunctivitis.

Keywords: Self-inflicted eye injury, Strands, Major depressive disorder

1. Introduction

Self-inflicted eye injuries are an uncommon, but fundamental form of self-mutilation. While most cases of self-inflicted eye trauma occur in adults, it is uncommon for it to occur in the pediatric group (1-4). Both mechanical (5, 6) and chemical injuries (7, 8) on the ocular surface can range from mild to severe resulting in irreversible ocular surface changes such as corneal infections and opacification (8), cicatricial changes (9) and blindness. In this case report, we report a rare case of unexplained ocular allergy due to self-inflicted eye injury in a girl, due to major depressive disorder (MDD). Major depressive disorder is the most common form of depression in children, and is characterized by chronic feelings of sadness or worthlessness, irritability, physical lethargy, insomnia, sometimes thoughts of suicide and non-suicidal self-injury behavior (10). Numerous studies have estimated the prevalence of MDD in children and adolescents. Reviews of previous studies show a median prevalence estimate of 4.0% with a range from 0.2% to 17% for major depression (11).

2. Case presentation

A five-year-old girl presented to Sohag University Outpatient Clinic with her parents who complained that she suffers from repeated attacks of bilateral eye redness with blood-tinged strands removed from her eyes. There was no history of systemic medical diseases in the child or the family. The parents of the girl mentioned that she had been examined previously by an ophthalmologist in their village and was diagnosed as having ocular allergy with previous treatment but without improvement. Detailed medical history from both her parents was taken. They mentioned that there was a burning sensation and redness but there was no itching, there was no specific allergy

Corresponding author:

Assistant Professor Dr. Abdelrahim Abdrabou Sadek, Department of Pediatrics, Faculty of Medicine, Sohag University, Sohag 82524, Egypt, Email: abdelreheam_sadek@med.sohag.edu.eg and abdoneurology@yahoo.com

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towards a certain allergen or previous exposure to irritants. The nature of the eye discharge had been described by both parents who reported that the discharge was thread like in consistency and blood-tinged to the extent that they confided with us in the interview that they believed it was an act of the devil. Ocular examination by slit-lamp did not show any eye-lid signs of allergy such as redness or eczema. Skin prick testing was done and it was negative. Bilateral conjunctiva was found to be injected especially in the lower fornix with no papillae or follicles in the palpebral conjunctiva. Strange strands were found in the lower conjunctiva (Figure 1).



Figure 1. Blood tinged threads present in the right inferior fornix

The strands appeared firm in consistency, blood tinged and multiple in numbers. No other positive ocular signs were found. Strands were examined carefully. We found by direct observation that they were actual threads of a cloth nature and not biological (Figure 2). Some of them had the color of the girl's own clothes. Both worried parents were villagers, they were asked about the presence of any domestic problems or psychological stress or behavioral changes of the girl. There was no previous history of similar condition in their other children, but there was a history of social troubles in the family. In a separate interview, the girl confessed to us that she had put threads in her eyes. The girl was referred to psychiatric consultation and diagnosed as having pediatric major depressive disorder by (DSM-V-TR) criteria (12). The case was subject to pharmacological treatment in the form of selective serotonin reuptake inhibitors (SSRI) and psychotherapy in the form of cognitive behavioral therapy and relaxation techniques, and showed significant improvement within two months of starting treatment with regard to depressive symptoms and self-injury behaviors.



Figure 2. Threads removed from the eye

3. Discussion

In this case report, we reported a case of pediatric self-inflicted eye trauma due to major depressive disorder, which is rare in children. Self-inflicted ocular mutilation has many ocular clinical presentations, including chronic conjunctivitis, anterior scleritis, corneal lacerations, recurrent corneal erosion, persistent epithelial defects, corneal infiltrates, scleral or corneal perforations, endophthalmitis, and even enucleation of the globe. (13-17). Diagnosis of self-inflicted ocular injuries is quite difficult in our daily practice especially in children, in our case, the girl presented to us with allergic conjunctivitis-like manifestations with more profound injection in inferior. In a study of Pokroy et al. (18), they investigated self-inflicted factitious conjunctivitis in conscripted soldiers and found that all cases showed inferior bulbar conjunctival hyperemia with a surprisingly quite superior bulbar conjunctiva similar to our case. Therefore, ocular injuries involving the more accessible inferior and nasal aspects of the eye should alert ophthalmologists that these injuries might be self-inflicted (19). Munchhausen's by proxy (20, 21) as a liability had been excluded due to the illiterate and worried nature of both parents who appeared in the interview with the child, also, there was no family history of similar conditions in their other children. The diagnosis of our case as self-inflicted eye trauma could easily be missed because allergic conjunctivitis is a common disease in our hot and dry region of south Egypt; however, the presence of a non-biological substance like cloth threads directed us to such diagnosis in addition to a negative skin pricking test and ineffective topical and systemic steroid therapy. The girl was diagnosed after psychiatric consultation as having pediatric major depressive disorder by the (DSM -V-TR) criteria (12), depressive symptoms are more common in children with self-injury behaviors (22, 23).

4. Conclusions

Self-inflicted eye trauma is a serious type of self-injury as it may lead to irreversible visual damage and even blindness. A high index of suspicion is needed to diagnose self-inflicted eye trauma in the pediatric age group. Psychiatric consultation is needed to reach the cause. Finally, pediatric self-inflicted eye injuries due to pediatric mood disorders are rare conditions, but should not be excluded as a cause of unexplained chronic conjunctivitis.

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Conflict of Interest:

There is no conflict of interest to be declared.

Authors' contributions:

All authors contributed to this project and article equally. All authors read and approved the final manuscript.

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