Case Report

Impacted Stone Mimicking Orbital Cellulitis

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Abstract

A 10-year-old male presented with a history of swelling in the left eye for the past 4 days. He was already on antibiotics, but his symptoms did not improve. Ocular examination revealed stone pieces/fragments lodged in the left eye. This case highlights a rare mimic of probable diagnosed orbital cellulitis.

Keywords: Cellulitis, edema, stone

Introduction

Orbital cellulitis is a dreaded ocular disease with varying rates of recovery and complications. Any undiagnosed ocular foreign body mimicking the disease has rarely been reported. We report this case to highlight the importance of a meticulous eye examination in clinching the diagnosis.

Case Report

A 10-year-old boy was brought to us with a history of swelling in the left eye for the past 4 days. He had visited some general practitioner who prescribed him antibiotics and analgesics, probably considering it to be orbital cellulitis, but his symptoms worsened. There was no other significant medical, surgical, family, traumatic, or drug abuse history. Ocular examination of the right eye was within normal limits, while the left eye on gross inspection revealed severe lid edema and ocular structures could not be visualized. Lid retraction by Desmarres lid retraction gave us our first surprise. Three stone pieces/fragments [Figures 1 and 2] were lodged in the medial palpebral conjunctiva and superior fornices of the left eye which were removed by forceps. These fragments were leading to the swollen appearance of the left eyelid. There was also a corneal ulcer [Figure 3], 3mm by 2mm at 11 o'clock position. On further inquiring about any history of trauma, the boy stated that he had a fall in the fields while playing 1 week back.

He was started on standard treatment for corneal ulcer with both antibiotics and antifungal drops (moxifloxacin, natamycin, and fluconazole) in his schedule. Over the next few weeks, he showed improvement in his corneal status. He is on a regular follow-up with us.

Discussion

A foreign body (FB) is any abnormal substance that does not belong to the body (eye). Extraocular FB (EOFB) seen to lodge in the eye includes coal, dust, iron particles, eye lashes, wood piece, wings of insect, while intraocular FB (IOFB) which penetrates the eye includes chips of iron or steel, stone, glass, and lead pellets. In the conjunctiva, FB on the inner surface of the upper lid continuously abrade the cornea during blinking.[1] FBs on entering the eye are likely to cause adhesion, abrasion/ulceration, penetration, and/or perforation as its effect.[2] Hair from the scalp[3] and eyelashes[4] has been reported to be lodged in the punctum, leading to various ocular symptoms.

FBs in the eye are usually classified as IOFB or EOFB. In IOFB, the FB is within the eye ball, and in EOFB, it is outside. Thus, three main types of ocular FBs are global, adnexal, and mixed.[5]

Global foreign bodies

1. Intraglobal FB – Depending on their exact location, they may be in the anterior chamber, iris, lens, vitreous, choroid, or retina

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Access this article online

Quick Response Code:

Website: www.matrixscimed.org

DOI: 10.4103/MTSM.MTSM_3_20

How to cite this article: Chauhan A, Wapa A, Sharma DK, Thakur PK. Impacted stone mimicking orbital cellulitis. Matrix Sci Med 2020;4:54-5.

Submitted: 24-02-2020, **Accepted:** 02-03-2020, **Published:** 08-06-2020

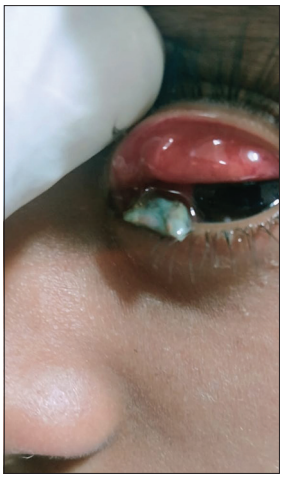

Figure 1: Foreign body in the eye

Figure 2: Removed foreign body

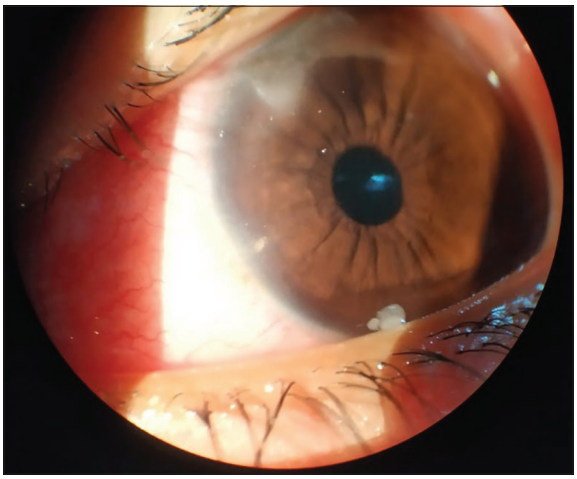

Figure 3: Corneal ulcer

2. Extraglobal FB – They may be lying on the surface of cornea or on the sclera
3. Intramural FB – Again, they may be within the cornea or within the sclera.

Adnexal foreign body

1. In lids or palpebrarum – FB can be either on the surface of the lids or within the substance of lids
2. In the orbit – FB can be either within the muscle cone or outside in the peripheral space
3. In lacrimal passages – FB could be in the lacrimal gland, in the lacrimal sac, or in the nasolacrimal canal
4. In the conjunctiva – FB may be in the palpebral conjunctiva, in the bulbar conjunctiva, or in the upper or lower fornix.

Mixed foreign bodies

1. Mixed global-global – These FBs involve more than one component of globe or eyeball. There could be any combination between cornea, anterior chamber, lens, vitreous, choroid, or retina
2. Mixed adnexal-adnexal – There could be any combination with lids, orbit, lacrimal apparatus, and conjunctiva
3. Mixed global-adnexal –There could be any combination of any global component with any adnexal component
4. Mixed para-orbital – FB in the orbit may extend to nasal cavity, cranial cavity, or any of the paranasal sinuses.

Orbital cellulitis is a purulent infection of the structures posterior to the orbital septum, and it can be potentially vision and even life-threatening. It can occur as a result of trauma, insect bites, and ear-nose-throat infections. Common signs and symptoms include eyelid edema, erythema, pain with or without tenderness, chemosis, proptosis, and limitation of ocular motility. Intravenous antibiotics form the mainstay of treatment.[6]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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