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A CASE OF MASQUERADING INTRAOCULAR FOREIGN BODY

Ophthalmology

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ABSTRACT

Background The presentation, course, and prognosis of intraocular foreign body (IOFB) injuries vary depending on a number of variables. IOFBs can injure the globe by piercing or perforating it. The zone of injury, the kind and size of the foreign body, and the problems that follow all affect the visual prognosis. An improved prognosis in IOFB injuries is due to increased knowledge of eye protection and enhanced surgical methods. **Summary** 22 years old male patient with complaints of pain and diminution of vision in the right eye for 1 week. Patient had a history of self-fall while collecting water from tube well near his residence. On examination, a diagnosis of post-traumatic endophthalmitis was made. As the USG B-Scan of the eye came as normal, a CECT was done and an intra-orbital foreign body was suspected which was removed. **Conclusion** Always have a clinical suspicion of a foreign body in cases presenting with post-traumatic diminution of vision. As USG in many cases come as normal in cases of intra-orbital foreign bodies, never hold back in doing a CT or MRI in such cases.

KEYWORDS

Intraocular Foreign Body, Trauma, Oculoplasty, Orbit, IOFB

BACKGROUND

Ocular injuries are a major cause of blindness. They continue to be a public health problem worldwide.[1] Intraocular foreign body (IOFB) associated ocular trauma is unique and requires skillful investigation with early treatment. IOFB is mostly metallic. They are usually generated during chisel hammering, drilling, gunshot, or bomb blast. Manual laborers are at high risk.[1,2] According to a study, about 2/3rd of IOFBs were found in the posterior segment.[3] With the advancement of surgical techniques, many eyes can be saved, and good final visual acuity can be achieved. Visual prognosis depends upon multiple factors, including size, site, the composition of foreign body, inflammatory response, tissue damage, time since injury, and any associated endophthalmitis and retinal detachment.[4,5]

Case Presentation

Here, we present a case of a 22 years old male who presented with pain and diminution of vision in the right eye for 1 week. He had a vision of perception of light. He had a history of self-fall while collecting water from tube well near his residence. He had discharge from right eye few days after trauma which was mucopurulent initially and later became purulent in nature. There was associated congestion and periorbital oedema on presentation the eyeball was slightly deviated to the temporal side (Fig. 1).

Fig. 1-Showing the patient on presentation

On examination, he had slightly reduced extraocular movements on all directions of gaze and more toward the nasal side. There was yellow reflex on torch light examination. Pupil was irregular and non-reacting and had iridodialysis in the temporal quadrant (Fig. 2). Lens and posterior chamber of the patient could bot be assessed.

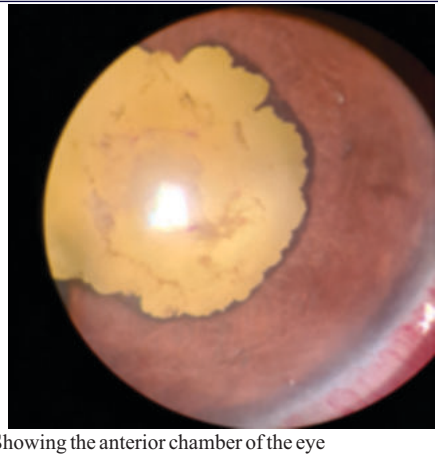

Fig.2 -Showing the anterior chamber of the eye

A provisional diagnosis of post-traumatic endophthalmitis was made and patient was started on systemic as well as topical medications. As there was suspicion of an intraocular foreign body, an USG-B scan was done and it came out to be normal.

As the symptoms were no improving, patient was planned for a CECT orbit. Subsequently a foreign body was suspected to be present in the intra-orbital compartment with damage to the scleral and uveal tissue which led to endophthalmitis (Fig. 3).

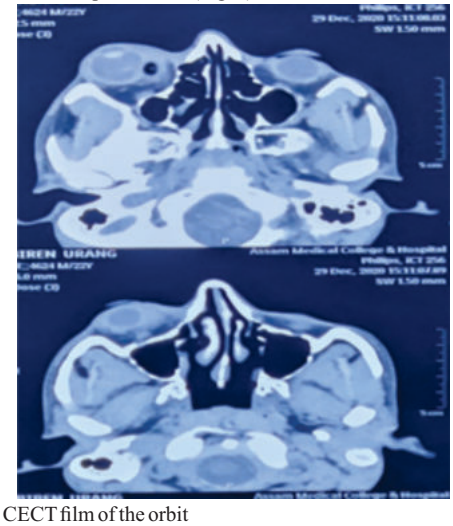

Fig.3- CECT film of the orbit

Patient was planned for surgical exploration under local anesthesia. Necessary blood investigations were done prior to surgery. On exploration, a wooden piece measuring around 3 cm was found in the medial orbital wall with little damage to the medial coats of the eyeball (Fig.4).

Fig.4- Foreign body obtained after surgery

Following the surgery, the symptoms improved drastically. the vision started improving even though the final vision was still hand movements close to face as the patient presented late. The patient was further referred to a higher center for pars plana vitrectomy.

DISCUSSION AND CONCLUSION

Intraocular foreign bodies are a major cause of visual morbidity following trauma. When orbital foreign body is not suspected or is clinically insignificant, it can occasionally be challenging to identify. It is important to keep a thorough record of the circumstances surrounding the injury, paying close attention to the environment and any potential foreign material's composition. Ideally, an IOFB should be removed within 24 hours of the time of injury, and the object and the surrounding ocular tissue should be sent for culture.

Imaging studies should be used to determine the location of the foreign body and to rule out optic nerve or CNS involvement.[6] Outcomes depend on severity of inciting trauma, material and location of the foreign body. Anteriorly located FBs without penetration of the globe and good visual acuity on presentation were associated with a better prognosis and visual acuity.[7]

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