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IMAGES IN EMERGENCY MEDICINE

Trauma

Man with left eye trauma

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KEYWORDS
angle grinder, foreign body, orbit, trauma

FIGURE 1 The patient's first presentation in the operating room after work-related injury with intraorbital metallic foreign body

1 | CASE PRESENTATION

A 32-year-old man presented to the emergency department with left eye trauma after an angle grinder explosion (Figure 1). Because he was confused as a result of the severity of trauma, the physical examination was not completely reliable. Visual acuity was reported as poor light perception in his left eye and 20/25 in his right eye. The initial examination highly suggested that the vision loss was the result of the globe rupture and that intraocular tissues and retina were severely damaged.

2 | DIAGNOSIS

Computed tomography revealed that the foreign body was limited to the orbital space and that it did not involve the cranial fossa (Figure 2). Neurosurgery consultation did not recommend neurosurgical intervention for the patient. Exploratory eye surgery revealed that the foreign body had not ruptured the globe. Nevertheless, because of severe eyelid injury, the eyelid was meticulously repaired (Figure 3). Visual acuity increased to 20/32 the day after surgery, and the patient was discharged with oral antibiotics and betamethasone drop (1 drop every 8 hours for 1 week) to manage microscopic hyphema and corneal edema. At the 1-month follow-up (Figure 4), visual acuity reached the pre-trauma level of 20/20, and ocular examination showed normal anterior and posterior segments.

3 | DISCUSSION

Work-related eye injuries hurt workers and incur a huge burden in terms of costs and human resources. They cover a wide range of injuries, from corneal abration to globe rupture and blindness.[1,2] Although permanent vision loss constitutes about 5% to 10% of work-related eye injury outcomes, in some patients, such as in our case, blindness is reversible and prompt management can save a patient's vision.[3,4]

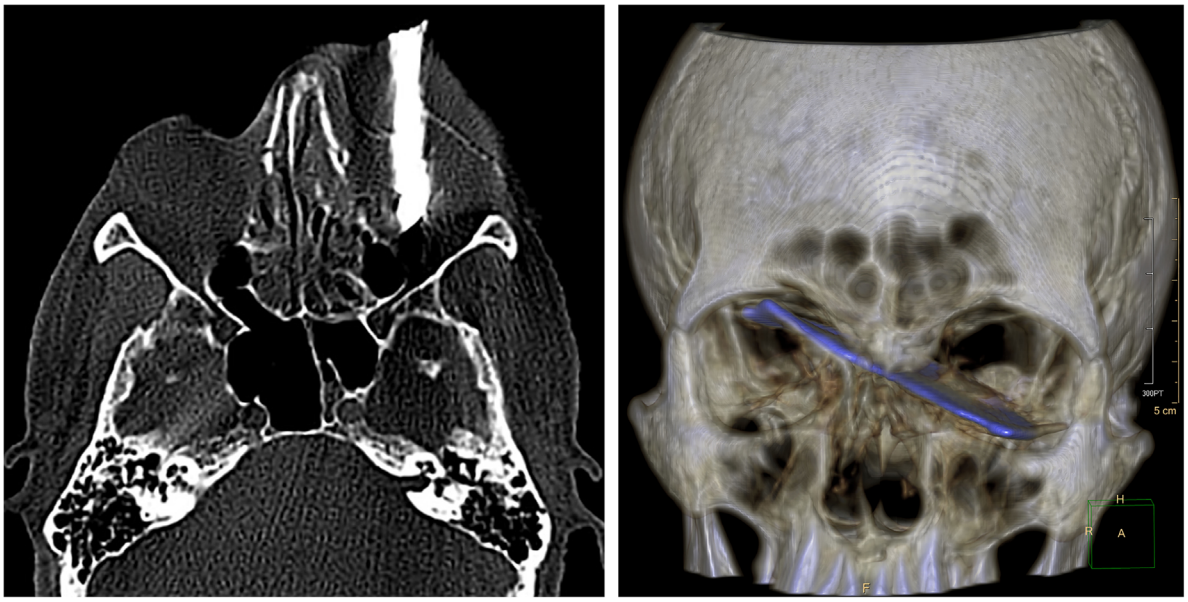

FIGURE 2 The 2-dimensional and 3-dimensional computed tomography scans demonstrated the passage route of the foreign body, which fortunately did not involve the cranial fossa

FIGURE 3 After the foreign body was removed from the orbit, it was clear that the globe was not damaged, and eyelid repair was performed

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The authors would like to express their gratitude to the study patient who signed written consent for publishing his information and photos.

FIGURE 4 One-month follow-up revealed no visual function impairment

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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