Fatal orbitocranial injury by fencing and spectacle sidebar

Dear Editor,

Transorbital orbitocranial penetrating injuries (TOPI) are relatively rare and can be caused by a variety of unusual objects.¹ A 40-year-old gentleman had fallen down from a moving lorry on a roadside fencing. The fencing bar along with his spectacle bar penetrated his right orbit. He presented approximately two hours after the accident in a drowsy condition. General and systemic examination was unremarkable. On local examination the cut end of the fencing and spectacle sidebar was entering into the skull and globe through the upper part of the right eyelid and there was profuse and active bleeding from the wound. X-ray skull showed both the metallic objects penetrating through the orbit into the cranial cavity [Fig. 1]. Computed tomography (CT) scan facility and facility to perform direct puncture carotid angiogram at that time was not available. However, in view of profuse and active bleeding it was decided to remove both the objects urgently [Fig. 2]. The patient underwent left frontal craniotomy by a neurosurgical team and the dural defect was repaired with pericranial graft. Following surgery the patient continued to deteriorate and expired. According to studies intracranial extension of the foreign bodies is associated with a 25% mortality rate.^{2,3} The intracranial lesions in these patients include ventricular damage, carotico-cavernous fistula, pneumocephalus and subdural, subarachnoid, intraventricular, and intracerebral hemorrhage.⁴ Although radio-opaque foreign bodies causing such injuries may be easily located by routine X-rays,⁵ it may not provide adequate details to assess the extent of intracranial damage. In patients with orbital injuries for the assessment of serious underlying intracranial injuries the recommended investigations include CT and magnetic resonance imaging (MRI).^{4,6} To rule out vascular injuries angiography and/ or CT angiography may be needed.⁶ However, in the presence of metallic objects MRI may not be possible and

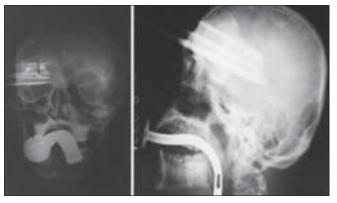


Figure 1: X-ray skull antero-posterior (left) and lateral (right) view showing the trajectory of foreign body



Figure 2: Photograph showing the removed fencing (lower) and spectacle (upper) sidebar

these objects can produce severe artifacts. At times the sophisticated facilities may not be available and if the patient's condition is such that he cannot be referred to a higher center it becomes really difficult to assess the underlying damage. In such circumstances the patients can be managed based on the available evidence but the results may not be rewarding.

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