Unusual Craniocerebral Penetrating Injury: Case Illustrations

Nadir Kronioserebral Penetran Yaralanma: Olgu Sunumları

TAHSIN ERMAN, A. İSKENDER GÖÇER, METİN TUNA, ORHAN ŞEN, FARUK İLDAN, SEBAHATTİN HACIYAKUPOĞLU

Department of Neurosurgery, Çukurova University, School of Medicine (TE, AIG, MT, FL, SH) Adana, Turkey
Department of Neurosurgery, Başkent University (OŞ), Adana, Turkey

Received: 19.6.2001 ✦ Accepted: 13.9.2001

Abstract: Missile injuries to the head account for the majority of penetrating wound of the brain. Low-velocity penetrating cranial injuries excluding gunshot wound are seen infrequently in civilian practice. Most cases result from industrial accidents, criminal assaults and self-inflicted injury. This report deals with an interesting type of craniocerebral trauma and the literature related to these unusual cases is reviewed.

Key Words: Foreign bodies, Head injury, Unusual

Case 1. A 8-year-old boy was admitted to the department of neurosurgery on December 24, 1997 with a history of penetrating trauma. He was accidentally stabbed in right parietal area with a sharp edge of a knife. When seen in the emergency room one hour later, he was drowsy and had mild left hemiparesis. Examination of the right parietal area revealed a 4 cm vertical laceration and the knife handle was visible. The skull x-ray revealed that knife blade tip had penetrated the right parietal area to a depth of 4 cm (Fig. 1). Emergency craniectomy was carried out via parietal flap. The knife was removed under direct vision. Postoperative CT showed a right parietal intracranial air and area of small cerebral contusion after 3 weeks later (Fig. 2). He had minimal hemiparesis on his left side at follow-up examination 8 months postoperatively.

Case 2. A 4-year-old boy was admitted to the department of neurosurgery on February 14, 1994 with a history of penetrating trauma. When he was playing in the garden of the flat the fire tongs fell
Missile injuries to the head account for the majority of penetrating wound of the brain. Low-velocity penetrating cranial injuries excluding gunshot wound are seen infrequently in civilian practice. Most cases result from industrial accidents, criminal assaults and self-inflicted injury (2-5). Scalp and skull injuries from firm, pointed objects
encountered in childhood, however, are relatively common. Due to the thinness of the incompletely ossified pediatric skull, seemingly minor injuries may be associated with violation of the dura and brain (1).

In the two cases reported here, emergency neurosurgical evaluation and exploration permitted complete recovery without delayed complications.

Correspondence: Tahsin Erman
Çukurova University School of Medicine, Department of Neurosurgery
Balcah- Adana/01330 TURKEY
Tlf: 90 322 338 60 60/3212
Fax: 90 322 338 69 88
E-mail: dr_erman@yahoo.com

REFERENCES

Gunshot injury to the head and spine.
Rosenfeld JV.

The most important predictive factor is the post-resuscitation Glasgow Coma Score (GCS). Early aggressive resuscitation, surgery and vigorous control of intracranial pressure offers the best chance of achieving a satisfactory outcome. The indication for acute spinal cord decompression is deteriorating neurological status. Steroids are not indicated for these injuries.