Accidental penetration of screw driver in the cranial cavity

Ali K. Al-Shalchy*	MBChB
Mohammed Saeed *	MBChB

Summary:

Fac Med Baghdad
2010; Vol. 52, No. 2
Received Feb., 2009Background: penetrating foreign body is a common problem but penetration by screw driver is very
uncommon
Patient & method: A nine years old boy presented with penetrating screw driver through the medial
canthus of the eye.
Result: the foreign body removed under GA with good result.
Conclusion: minimal invasive procedure are preferred when we have penetrating head injury.
Keywords: foreign body, penetrating head injury.

Introduction :

Penetrating head injury is a common entity, the intent of treatment in such penetrating wounds is to increase the incidence and quality of survival by prevention of early and late infection,by control and relief of increased intracranial pressure , and reduction of secondary damage to the affected brain tissue.

The case

H.A.A. who is nine years old completely healthy fall down on screw driver, the bar entered through the right medial canthus ,

The family brought the child to emergency room in Baghdad medical city ,neurosurgical consultation was done at 6:00 PM (2 hours' after the trauma)



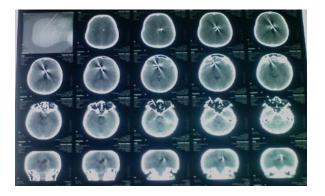
On examination: child fully conscious (GCS 15/15), no neurological deficit, both eyes intact .no CSF leakage was present. Skull X ray was done to the patient





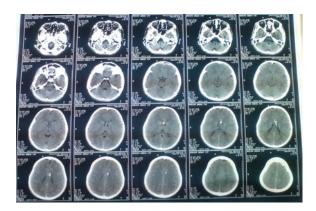
Brain CT was mandatory to exclude intracranial hemorrhage.

*Dept. Of Neurosurgical, Unit of specialized surgical hospital



We admitted the patient and prepare him for surgery telling the family that we will try to pull the bar under GA & if we fail we will do craniotomy. In the theatre under GA we were able to pull the bar, few cc of CSF came out.

After surgery the patient was kept in the ward for ten days on prophylactic antibiotics & antiepileptics . Post operatively brain CT was done to exclude hematoma formation



The patient didn't develop CSF leakage nor meningitis (but develop meningism for tow days).

Patient discharged home with good condition.

Discussion:

We reviewed many literature on foreign body, including Cushing study at 1918, dodge at 2002, Hogan at 1971, the well known Jannet at 1981, all these studies are in favor of extensive procedure with all types of foreign body, including craniotomy & dural repair, but we noticed in this patient the minimum procedure gave us excellent result.

Conclusion: minimal invasive procedure are preferred when we have penetrating head injury

References:

1-Hammon W.M: missile wounds in Vinkin PJ, Bruyn GW, braakman R(eds), handbook of clinical neurology, vol23:injuries to the brain & skull. Amesterdam, north Holland Publishing Co.1975.p505-526.

2-Baker CC, oppenheimer L, StephensB, Llewis FR, Turkey DD; Epidemiology of trauma and death, Amj surg. 140;144-148 1980.

3-Cushing H: A study of series of wounds involving the brain and its enveloping structures.Br. J Surg 5:558-684.1918.

4-Dodge PR, Meiiowsky AM Tangential wounds of the scalp and skull.J Neurosurgery 92 53-67 2002. 5-Hagan RD, Early complications following penetrating wounds of the brain. J neurosurgery ,34. 132-141 1971.

6-Jannett B Teas dale G. Management of Head Injuries, Philadelphia, Davos 1981, P193-209.