

Super Acute Extradural Hematoma: A Rare Computed Tomographic Presentation

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Extradural Haematomas are commonly associated with direct trauma to bones of the cranium resulting in damage to the middle meningeal artery or its branches. The condition is present in 1-3% of the head injuries.³

Case Report

This 8 yr-old female was brought to the emergency room from Bandipur-3, Tanahun on 29-06-08 with complaints of fall from height (tree) about 10 feet high at around 11:15 am on the same day. The patient had history of loss of consciousness for about 2 minutes and about 9 episodes of vomiting which was non-projectile, non-bile stained and contained mainly food particles. Headache was present. Patient felt giddy and nauseated when she stood upright. However there was no history of any E.N.T. bleed or seizures.

On examination, her pulse rate was 68 per minute and blood pressure was 120/70 mm Hg. Glasgow coma scale was 14/15, pupils were bilaterally equal and reacting to light. C.N.S examination revealed no abnormalities. Chest compression test and pelvic compression test were negative. Local examination revealed swelling on the occipital region.

Baseline investigations and a plain CT head were obtained. Reports showed sodium-137, potassium- 4.0, urea- 40, creatinine-1.5, random blood sugar-

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A case of super acute extradural posterior cranial fossa Haematoma with a rare computed tomographic (CT) presentation is reported. The patient developed a nearly fatal posterior fossa hematoma appearing on initial CT as a hypo dense opacity which gave a confusing picture. The characteristic image is a well localized, hyper dense, extra cerebral biconvex lesion.

Key words: acute extradural hematoma, continuous monitoring, posterior cranial fossa

98, hemoglobin- 12.1 gm/dl. Chest Xray and Cervical spine Xrays were normal. Before this, patient had been taken to Bandipur Hospital where she had received medications. The Glasgow coma scale was 15/15 but the patient was becoming progressively drowsy.

Hence she was referred to our center for further evaluation. CT head (plain) (**Figure 1**) showed a hypo dense concavo-convex lesion in the right posterior cranial fossa. The right side of the fourth ventricle was compressed. There was no blood seen above the tentorium to suggest a transverse sinus tear, however since the lesion was seen in the area of the transverse sinus and although it was hypodense, a provisional diagnosis of super acute Extradural Hematoma was made. The patient was taken up for posterior fossa craniectomy in prone position under general anesthesia on 30-06-08. Right sided posterior cranial fossa craniectomy was performed with evacuation of Hematoma and packing of the transverse sinus. The hematoma was seen to be clotted by this time although there was oozing from the transverse sinus which was packed and hitch stitches were taken.

Discussion

Extra dural hematoma represent 25-35% of all traumatic space occupying lesions of the posterior cranial fossa.¹ 10% of the extradural bleeds may be venous in origin.²

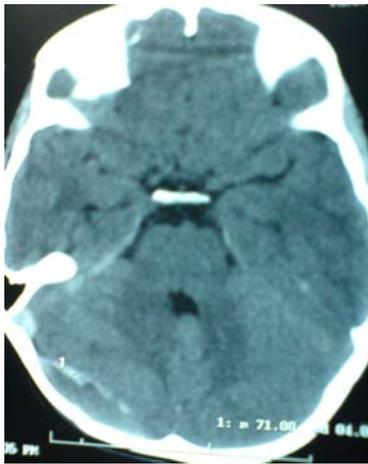


Figure 1. The above CT shows a hypo dense extra-axial lesion with a hyper dense margin in the right posterior fossa. Note the compression of the fourth ventricle on that side.

Posterior fossa extradural hematomas are much less common than supratentorial epidural hematoma. The reported case draws attention to the fact that the initial picture in a superacute extradural hematoma may be that of a hypo dense lesion which can be misleading. It is also possible that some of the intracranial haematomas may evolve gradually and may not appear in the early CT scans of the patients and underlines the importance of the continuous monitoring of the head injured patients. Some possible factors implicated in the extradural hematoma being hypodense is clotting abnormalities, hypertension, hyperventilation and CSF leakage into the hematoma

probably with a dural tear. In a report of seven cases by Garza-Mercado, three of the patients suffered immediate transient unconsciousness and three patients though neurologically and physiologically stable for the first few hours while in hospital then suffered sudden respiratory arrests.⁴ Acute posterior fossa extradural hematoma has been associated with a mortality ranging between 12.5%-70%.⁵ The most significant factors influencing mortality include failure to diagnose the condition early, level of consciousness at the time of neurosurgical intervention and existence of associated brainstem lesions. Indeed, early diagnosis is essential as respiratory arrest secondary to cerebellar tonsillar herniation commonly occurs. Consequently emergency staff should maintain a high clinical suspicion for the possibility of a posterior fossa extradural hematoma in any patients with head injuries.

Any doubtful lesion in the posterior fossa should be evaluated by a Neurosurgeon since loss of valuable time in these cases proves to be fatal.

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