

SHORT REPORT

Nystagmus as the presentation of tentorial incisure subdural haematoma

Ely Ashkenazi, Shlomo Pomeranz

Abstract

A case of chronic subdural haematoma in the posterior fossa, secondary to anti-coagulant treatment, is presented. The unusual clinical presentation of vertigo and nystagmus and the atypical CT are discussed. This seems to be the first report to describe a chronic subdural haematoma in the posterior fossa in an alive adult.

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Chronic subdural haematoma is a well known clinical entity, with an incidence of one to two per 100 000 people a year.^{1,2} Most patients are 50 years of age or older. Those with a history of trauma have usually had a mild or trivial head injury. A significant proportion of patients are predisposed to subdural haematoma because of chronic alcoholism, epilepsy, or coagulopathies.¹ Vertigo and nystagmus are common presenting symptoms and signs in otolaryngology with a large range of aetiologies.³ We present a rare case of subdural haematoma in the posterior fossa in a patient treated with anti-coagulants, who presented with vertigo and nystagmus.

Case report

A 65 year old woman was admitted to the otolaryngology department because of severe true vertigo with a duration of 48 hours. She was known to have had rheumatic heart disease and underwent an aortic valve replacement 18 months before her current admission. Since then the patient had taken an oral anticoagulant, warfarin (Coumadin) (prothrombin time 40%-50%), and dipyridamole (Cardoxin), an antiplatelet aggregation medication. On admission the patient was fully conscious and had severe vertigo and prominent gross horizontal nystagmus in all ocular positions. There were no other neurological deficits. Brain CT demonstrated a space occupying lesion of the left tentorial incisure (3 × 5 cm) compressing the cerebellum and brain stem. Neither the peribrainstem cisterns nor the fourth ventricle were

visible due to their prominent compression. A fluid within the mass, with hyperdense and hypodense compartments, was seen (fig 1).

The patient was referred to the neurosurgical department. After correction of her coagulation profile with fresh frozen plasma and vitamin K, the patient underwent a suboccipital craniectomy, and a large subacute subdural haematoma was evacuated from the underside of the tentorium and the left tentorial incisure.

Postoperatively the vertigo and nystagmus resolved and the patient started to walk without assistance within 24 hours. A postoperative CT showed a normal fourth ventricle and cisterns (fig 2) with some residual air bubbles in the posterior fossa.

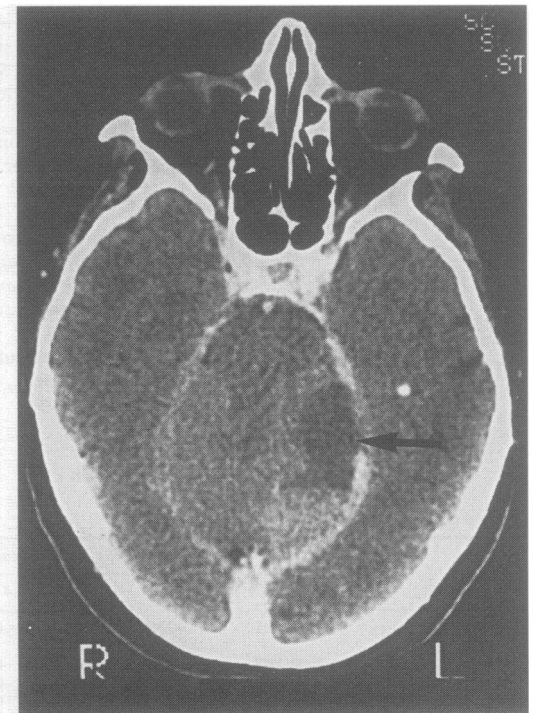


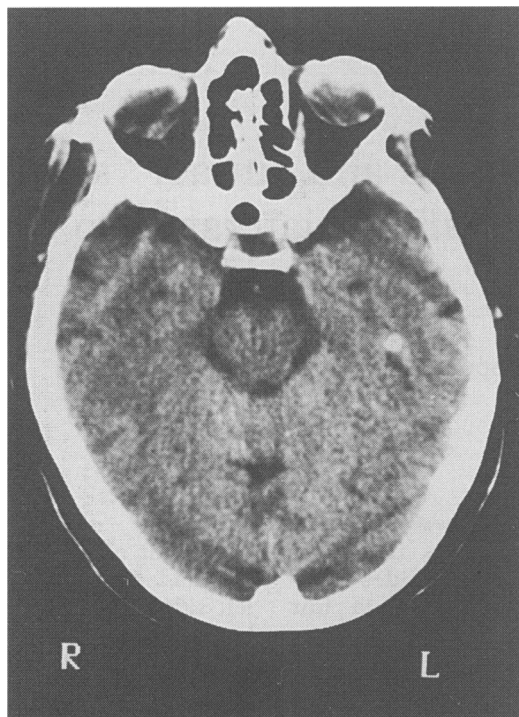
Figure 1 Axial CT at the level of the tentorial incisure demonstrating chronic subdural haematoma that has settled into a hyperdense lower component and a hypodense upper component. The fourth ventricle and cisterns surrounding the brainstem have been prominently compressed and the brainstem shifted laterally by the haematoma.

Department of
Neurosurgery,
Hadassah University
Hospital, Jerusalem,
Israel
E Ashkenazi
S Pomeranz

Correspondence to:
Ely Ashkenazi MD,
Department of
Neurosurgery, Hadassah
University Hospital, POB
12000, Jerusalem, 91120,
Israel.

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Figure 2 Axial CT at the level of the tentorial incisure in the same patient as in fig 1 after surgical drainage of the subdural haematoma. The fourth ventricle and cisterns are easily seen. The brainstem is central. Because of a different angle of the tomogram relative to fig 1, anterior and posterior structures are different from the previous examination.



Discussion

Dizziness and vertigo are common problems seen by both otolaryngologists and neurologists. True vertigo implies that a vestibular abnormality is present. This may be due to a central abnormality emanating from the vestibular connections in the CNS (vestibular nuclei, tracts in the brainstem, cerebellum, or cerebellar outflow tracts). Patients with tumours compressing the pontine region of the brainstem may present with vertigo and nystagmus, but this is uncommon and the symptoms are usually gradually progressive. Vertical nystagmus and other cranial nerve abnormalities are often seen in central vertigo.³

Chronic subdural haematoma is a well known entity.¹⁻⁶ Posterior fossa subdural haematoma is, however, uncommon, although it has been described in infants.⁷⁻⁹ As far as we know no cases of infratentorial

subdural haematoma in live adults have been described. Munro, in 1934, cites one case of posterior fossa subdural haematoma found at necropsy at Guy's hospital in an unoperated adult.^{4 10}

Anticoagulant treatment is a predisposing factor for subdural haematoma formation,^{1 11-14} especially if head injury is superimposed. Therefore, a patient on anticoagulant treatment, who has head trauma with any neurological symptoms should undergo CT even in the absence of any neurological deficit.

In the differential diagnosis of the aetiology of vertigo and nystagmus a subdural haematoma compressing the brain stem should be considered. This is especially applicable in the presence of predisposing factors for subdural haematoma. Although this aetiology is uncommon, its simple diagnosis by CT and specific and effective treatment by surgical drainage should be recognised.

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