Angiographic demonstration of the bleeding point in a posterior fossa extradural hematoma

Case report

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In a case of posterior fossa extradural hematoma, vertebral angiography demonstrated the bleeding point on the occipital branch of the vertebral artery.

KEY WORDS extradural hematoma • posterior fossa • vertebral angiography • bleeding point

EXTRADURAL hematomas of the posterior fossa are relatively uncommon, particularly their diagnosis by vertebral angiography. Identification of the bleeding point by escape of contrast medium from an artery in the posterior fossa is even rarer although several comparable cases have been reported in which the middle meningeal artery was demonstrated leaking into a temporal extradural hematoma.

Case Report

A 38-year-old man fell backward on board ship and hit his head on the deck, causing concussion. Severe headaches persisted and on the 6th day he developed a left abducens palsy which precipitated his referral to neurosurgical care on the 8th day.

Examination. Findings included papilledema, neck stiffness, dysarthria, and right hemiparesis. X-ray films showed a vertical fissure fracture crossing the transverse sinus and the posterior fossa to the foramen magnum just to the left of the midline. Left vertebral angiography demonstrated that the occipital branch of the vertebral artery was separated from the occiput from the level of the foramen magnum to above the transverse sinus. It also showed the escape of a small amount of contrast medium from the occipital branch at the foramen magnum (Fig. 1).

Operation. Posterior fossa decompression combined with a small supratentorial occipital craniectomy permitted removal of an extensive extradural hematoma 1 to 2 cm deep which covered the whole of the convexity of the posterior fossa and extended above the transverse sinus for about 5 cm.

The patient's recovery was uneventful.

Discussion

This case of extradural hematoma falls into the group of subacute lesions described by Hooper as presenting a clinical picture suggestive of tumor.

The blood supply of the dura mater of the posterior fossa comes from the occipital branch of the vertebral artery, which should be studied specifically in angiograms of patients suffering trauma. Separation of the occipital branch from the occiput from the level of the foramen magnum to above the transverse sinus, as demonstrated in this case, assists in understanding the extent of the hematoma and planning surgical treatment.
Angiographic identification of hematoma bleeding point

In the present case the diagnosis was confirmed by escape of contrast medium from this vessel immediately subjacent to a fracture line at the foramen magnum, while the vertical extent of the lesion above the transverse sinus was clearly depicted. The bleeding point was readily identified at operation.

References


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