Massive axial herniation after posterior fossa infarction following vertebral artery dissection

Figure

Sagittal T2-weighted MRI scan performed after suboccipital craniectomy showing cerebellar infarction and brain edema within the posterior fossa

Arrowheads indicate cranial and spinal limits of massive axial cerebellar herniation; arrows represent the borders of the suboccipital craniectomy.

A 35-year-old woman presented with recurrent dizziness, nausea, and headache for 2 weeks. Cranial MRI showed multiple bilateral cerebellar infarctions and caliber changes suggesting a dissection of right vertebral artery. Immediate full heparinization was performed and symptoms completely remitted after 2 days. After subsequent subacute deterioration resulting in unconsciousness 6 hours later, suboccipital craniectomy and extensive osmotic therapy were performed but did not control the massive brain edema in the posterior fossa, which led to death 3 days later (figure). Although vertebral artery dissections usually have benign courses, dramatic exceptions highlight the need for consideration of early suboccipital decompression despite anticoagulation.

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