Malignant cerebellar stroke: two cases with a good outcome

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Abstract

Introduction: The vertebrobasilar arterial system supplies blood to the posterior part of the cerebral hemispheres, including the occipital lobes and the posterior portions of the temporal lobes, the cerebellum, and the brainstem. Occlusion of large vessels in this system frequently leads to malignant strokes with major disability or death.

Case Reports: Case 1: a 71-year-old woman with known cardiovascular risk factors presented to the emergency room with disorientation and hallucinatory speech. CT showed recent ischaemic lesion of the right cerebellar cortex. Under surveillance there was neurological deterioration with Glasgow Coma Scale (GCS) of 13 and the CT at 24 hours showed a greater ischaemic area with mass effect and herniation. She was submitted to suboccipital decompressive craniectomy (SDC) achieving a very good outcome with a National Institutes of Health Stroke Scale (NIHSS) score of 1 at discharge.

Case 2: a 39-year-old man experienced an acute onset of visual disturbance and subsequently altered mental status with a GCS of 12 and anisocoria. The CT showed an acute ischaemic left cerebellar lesion with mass effect and compression of the IV ventricle. SDC was performed with a good outcome and the patient presented an NIHSS of 1 at discharge.

Conclusion: Malignant cerebellar strokes are associated with poor outcomes and high mortality, due to infarct swelling with subsequent brainstem compression and herniation. Early detection of rapid neurological deterioration and prompt SDC is crucial for better outcomes.