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Paediatric extra-axial medulloblastoma presenting with obstructive hydrocephalus and tonsillar herniation: clinical presentation and treatment challenges

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Abstract

Medulloblastoma is the most common paediatric tumour presenting in the posterior fossa. Typically, they are found midline and intra-axially located. Medulloblastomas presenting in an extra-axial location, however, are rare, and of those, they are usually found in the cerebellopontine angle. We present a case of an extra-axial medulloblastoma projecting from the lateral cerebellar hemisphere. As far as we know, there have only been two other cases of a paediatric extra-axial medulloblastoma in the cerebellar hemisphere reported in the literature. After initial medical stabilisation and insertion of an external ventricular drain, further imaging was obtained. MRI demonstrated a heterogeneously enhancing mass with diffusion restriction, a dural tail and a CSF cleft in the left lateral cerebellar hemisphere. A far lateral craniotomy was performed, with the tumour being encountered immediately on dural opening and a defined cleavage plane seen between the tumour and the cerebellar hemisphere. Gross total resection was achieved, and after a short recovery period, adjuvant craniospinal irradiation plus chemotherapy is started. This case illustrates an exceptionally rare location of a relatively common paediatric malignant brain tumour.

Keywords: CNS cancer; Neuroimaging; Neurooncology; Neurosurgery; Pediatrics.

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