A Rare Case Of Paediatric Meningioma

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Abstract

BACKGROUND: Meningiomas are arachnoid cell-originating tumours which rarely present in the paediatric population. Characteristic symptoms include focal or generalised seizures, although many patients are asymptomatic. These tumours are commonly seen in patients suffering from neurofibromatosis type 2, and almost half of patients presenting with meningiomas have allele losses in the DAL-1 and NF2 genes.

CASE DESCRIPTION: A 3-year-old female patient presented with a bony protuberance on the apex of her cranium. As part of her investigations, computed tomography imaging was performed, which showed a large intracranial calcified mass arising from the falx cerebri in the interhemispheric fissure, invading the overlying bone. As part of her treatment, a complete resection of the tumour was done, along with the surrounding dura mater and the overlying bone in June of 2023. During the postoperative recovery period, the patient developed an infection in the dural graft and cranioplasty with a cerebrospinal fluid leak. This was managed by the patient undergoing a staged cranial reconstruction 10 months after her original operation, with hopes of discharging her on the first anniversary of her original resection surgery.

CONCLUSION: We present an atypical case of paediatric meningioma originating from the falx cerebri and a review of literature which explores the occurrence of meningiomas in the paediatric population, its aetiology, presentation and management. The final objective of the surgery should be tumour resection using the Simpson Grade and management using systemic approaches such as mTOR inhibitors or antiangiogenic treatments have also shown promising results.

KEYWORDS: Meningioma, paediatric brain tumour, paediatric meningioma, complete resection, staged cranial reconstruction.