Ectopic Cerebellar Tissue

Ectopic cerebellar tissue has only been described in isolated case reports, with only two reported cases in adult patients. Gupta et al. reported the case of a 63-year-old woman with progressive, medically refractory headaches. A scan showed an intraosseous lesion of the midline occipital bone. Surgical resection of the soft tissue lesion was undertaken. Her headaches ceased postoperatively. Histopathological analysis revealed cerebellar cortical tissue with a surrounding meningothelial cell layer, characteristic of cerebellar ectopia. This is the second reported case of an intraosseous location of this lesion, and only the third case described in an adult patient. Our findings illustrate a rare cause of headaches and support the therapeutic roles of surgical treatment for this extremely rare condition [1].

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a 61-year-old woman without significant previous clinical history presenting for neck pain and stiffness. An extensive workup detected multiple lytic lesions within the occipital bone and cervical vertebrae, suspicious for multiple myeloma or metastatic disease. Surgical resection of the occipital bone lesions revealed ectopic cerebellar tissue, some containing folia with mature cortical lamination, and no evidence of malignancy.

This study describes the oldest individual presenting with ectopic cerebellar tissue and the only instance in which oncologic workup for malignancy was carried out prior to resection. It also proposes surgical resection as a diagnostic and curative approach for this complex basicranium and neural developmental defect, and discusses retinoic acid toxicity as a possible cause of its occurrence [2].

Ectopic cerebellar tissue located distantly from the normal cerebellum is very rare, and its pathophysiology remains to be elucidated.

Case presentation: We report an extremely rare case of intraosseous ectopic cerebellum detected incidentally at suboccipital craniotomy in a 46-year-old Japanese woman with hemifacial spasm. She had a small bone defect in the occipital bone, which contained a tiny area of soft tissue surrounded by cerebrospinal fluid connecting to the normal subarachnoid space through a dural opening. Histopathology demonstrated cerebellar cortex tissue consisting of molecular and granular cell layers.

Conclusions: This is the first report of glioneuronal ectopia within the skull bone separated from normal brain tissue, and it is important to distinguish this entity from other osteolytic lesions [3].

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2)
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3)
Kawashima M, Kobayashi M, Ishizawa K, Fujimaki T. Ectopic cerebellar tissue in the occipital bone: a case report. J Med Case Rep. 2017;11(1):231. Published 2017 Aug 21. doi:10.1186/s13256-017-1394-0