Images in Neurosciences

Intracranial Ossified Metaplastic Meningioma: Unusual Cause of Headache

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A 33-year-old female presented with history of headache for 6 months. There was no history of seizures. Plain and contrast-enhanced computed tomography showed a large extraaxial completely ossified lesion with lobulated margins in the left frontal region with extension across the diploic space, into overlying scalp [Figure 1 and Video 1]. There was no enhancing soft tissue component. There was no perilesional edema. Craniotomy and near total excision of the tumor were done. Histopathological examination revealed metaplastic meningioma of ossific subtype. Meningiomas, the most common benign intracranial tumors, arise from arachnoid cap cells. They are also the most common nonglial primary tumor and most common extraaxial neoplasm. Meningiomas classically appear as hyperdense homogeneously enhancing mass. Calcification seen in 20%–27% of meningiomas is usually punctuate but may be large.^[1] Ossified meningioma, classified histologically as a phenotype of metaplastic meningioma, is extremely rare and belongs to WHO Grade I. Other histological phenotypes of metaplastic meningioma include cartilaginous, lipomatous, myxoid, xanthomatous, and cartilaginous tissue. The majority of ossific meningiomas are spinal in location with <20 cases of intracranial ossified meningioma reported so far.^[2,3] Clinical symptoms include headache, dizziness, seizure, blurred vision, and weakness of lower limbs. Surgical removal is the ideal treatment option, with radiotherapy being useful in recurrent cases. Although not extensively studied, overall prognosis of metaplastic meningiomas is good.^[3]

Financial support and sponsorship

Nil.

Figure 1: Computed tomography (a) scanogram and (b-e) sections in bone window show a large well-defined extraaxial ossified lesion with lobulated margins lesion in the left frontal region with extension across the diploic space, into the overlying scalp tissue. (f) The same lesion in brain window

Conflicts of interest

There are no conflicts of interest.

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How to cite this article: Indiran V. Intracranial ossified metaplastic meningioma: Unusual cause of headache. *J Neurosci Rural Pract* 2017;8:653.

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DOI:

10.4103/jnpr.jnpr_277_17