

Interhemispheric epidermoid cyst

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DESCRIPTION

A 44-year-old man presented following a tonic-clonic seizure. Intracranial epidermoid cysts account for approximately 1% of primary intracranial tumours. They are benign slow growing tumours derived from ectodermal inclusions during neural tube closure. Typical presentation is between the ages of 20 and 40 years.

Epidermoid cysts are frequently found in the cerebellopontine angle, being the third commonest lesion at this site, following vestibular schwannomas and meningiomas. Lesions arising in the interhemispheric fissure are rare, accounting for approximately 4% of all intracranial locations.¹

Clinical presentation is related to gradual mass effect and depends largely on the location of the tumour, the commonest symptoms being hearing loss, trigeminal neuralgia and headaches. Incidence of seizures is higher in patients with supratentorial lesions.²

On CT, epidermoids appear as lobulated hypoattenuating lesions that exert gradual mass effect (figure 1). MRI is the imaging modality of choice with the lesion often indistinguishable from arachnoid cysts on many sequences (figure 1). The characteristic heterogeneous/dirty signal on fluid-attenuated inversion recovery and restricted diffusion, owing to a combination of true restricted diffusion and T2 shine-through, aid in differentiating epidermoid cysts from arachnoid cysts (figure 2). Most epidermoid cysts do not enhance, although minimal rim enhancement occurs in approximately 25% of cases.³

Surgical excision remains the mainstay of treatment, often with incomplete resection due to adherence of the capsule to important neurovascular structures. At surgery, the tumour has an

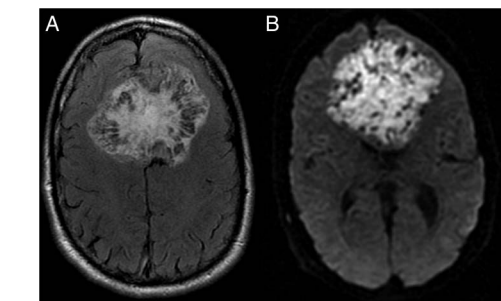


Figure 2 Axial fluid-attenuated inversion recovery image (A) demonstrating a characteristic heterogeneous/dirty signal and diffusion-weighted image (B) showing restricted diffusion.

irregular cauliflower outer surface and is composed of a pearly material lending the name 'beautiful tumour'.

Learning points

- ▶ The interhemispheric fissure is a rare but recognised site of intracranial epidermoid cysts.
- ▶ Intracranial epidermoid cysts demonstrate characteristic MR findings on diffusion-weighted imaging and fluid-attenuated inversion recovery sequences, allowing for accurate diagnosis in an atypical location.

Contributors MS performed the literature review and drafted the write up. RG was responsible for the images provided, review and final approval of the submitted article.

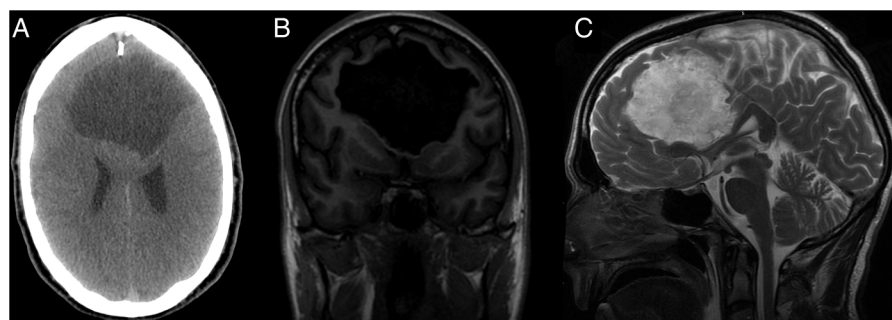


Figure 1 Axial unenhanced CT image (A) showing a lobulated hypoattenuating lesion in the interhemispheric region. Coronal T1-weighted image (T1WI) postcontrast (B) showing a non-enhancing hypointense lesion in the interhemispheric fissure and sagittal T2WI (C) showing a hyperintense signal within the lesion.



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