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Teaching NeuroImages: Osteolytic intraosseous meningioma causing transcalvarial herniation

Figure 1 Imaging showing a lytic lesion of right parietal bone with transcalvarial herniation

Figure 2 Macroscopic and microscopic features of the lesion

(A) Axial bone-window CT scan showing a lytic right parietal skull lesion. (B) Coronal T2-weighted MRI scan showing transcalvarial herniation.

A 69-year-old man presented for focal seizures characterized by dysarthria, confusion, left hand paresthesia, and hemifacial contractions. He had a 3-year history of episodes of epigastric burning, followed by confusion, olfactory hallucinations, and déjà vu. Head CT scan showed a lytic lesion of right parietal bone (figure 1A). MRI highlighted transcalvarial herniation of the dura mater and brain tissue underneath (figure 1B).

Figure 2 Macroscopic and microscopic features of the lesion

(A) Herniated brain tissue visible under a thin layer of skull. (B) Histopathologic examination revealing meningioma (asterisks) infiltrating the bone layer (arrow).
precuneus gyrus (figure 1B), suggesting a congenital or posttraumatic skull defect or an osteolytic lesion. After surgical repair and excision of adjacent injured brain tissue, histopathology revealed osteolytic meningioma (figure 2). Intraosseous meningioma is extremely rare, may cause transcalvarial herniation by osteolysis, and can be revealed by histopathology.

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### Appendix Authors

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