

Teaching Video NeuroImage: Dural Angioleiomyoma

Insights From Dynamic Imaging

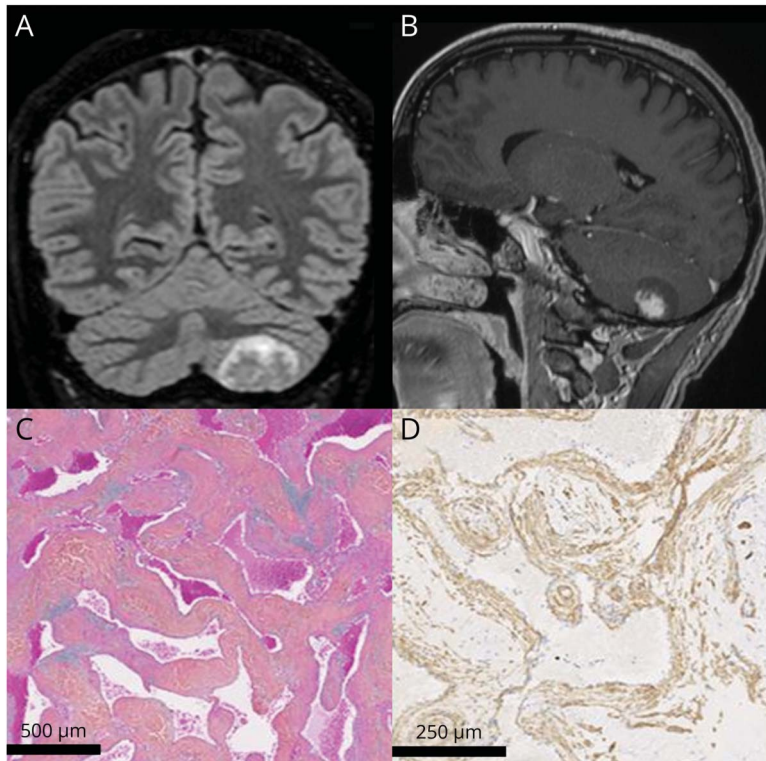
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Figure MRI and Neuropathology



MRI: coronal T2 fluid-attenuated inversion recovery (A) and contrast-enhanced T1-weighted sagittal (B) views. Neuropathology: anfractuous vascular cavities separated by muscular walls (Hematoxylin-Phloxin-Saffron) (C). Immunohistochemical analysis: smooth muscle cells labeled with antiactin antibodies (D).

A 47-year-old man with an unremarkable medical history presented with mild dull occipital headaches for 7 months, without other neurologic changes. Structural MRI showed an extraparenchymal, well-delineated left cerebellar lesion with partial postgadolinium enhancement (Figure). Exploration with T1-weighted perfusion (Video 1) revealed a progressive, centrifugal enhancement pattern with slow contrast filling, rapid near the center but slower toward outer edges, suggesting a benign mesenchymal tumor. The absence of mass effect and cerebellar symptoms further supported a slow-growing tumor. A surgical removal was performed. Neuropathologic examination revealed a well-circumscribed lesion with smooth muscle cells and vascular cavities, indicating dural angioleiomyoma (Figure). Dural angioleiomyoma is a rare benign tumor, with <80 cases reported in a recent literature review¹ related to soft tissue angioleiomyomas. Partial

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▶ Video

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and flame-like enhancement arising from the tumor base and extending to its periphery seems to be the most typical imaging characteristic,² and dynamic contrast-enhanced sequence may aid in envisioning diagnosis preoperatively.

Author Contributions

T. Leclerc: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; analysis or interpretation of data. C. Oppenheim: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; analysis or interpretation of data. A. Tauziède-Espariat: major role in the acquisition of data; analysis or interpretation of data. Hélène Charpentier: major role in the acquisition of data. J. Pallud: major role in the acquisition of data; analysis or interpretation of data. J. Benzakoun: drafting/revision of the manuscript for content, including medical writing for content; major role

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