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Teaching Video NeuroImage: Dural Angioleiomyoma: Insights From Dynamic Imaging

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Thomas Leclerc: Drafting/revision of the manuscript for content&comma; including medical writing for content; Major role in the acquisition of data; Study concept or design; Analysis or interpretation of data; Additional contributions (in addition to one or more of the above criteria)

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## **Manuscript**

A 47-year-old man with unremarkable medical history presented with mild dull occipital headaches for 7 months, without other neurologic changes. Structural MRI showed an extra-parenchymal, well-delineated left cerebellar lesion with partial post-gadolinium enhancement (Figure). Exploration with T1-weighted perfusion (Video) revealed a progressive, centrifugal enhancement with slow contrast filling, rapid near the center but slower toward outer edges, suggesting a benign mesenchymal tumor. 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 review (1), related to soft tissue angioleiomyomas. Partial and flame-like enhancement arising from the tumor base and extending to its periphery appears to be the most typical imaging characteristic (2), and dynamic contrast-enhanced sequence may aid envisioning diagnosis preoperatively.

## **Legends**

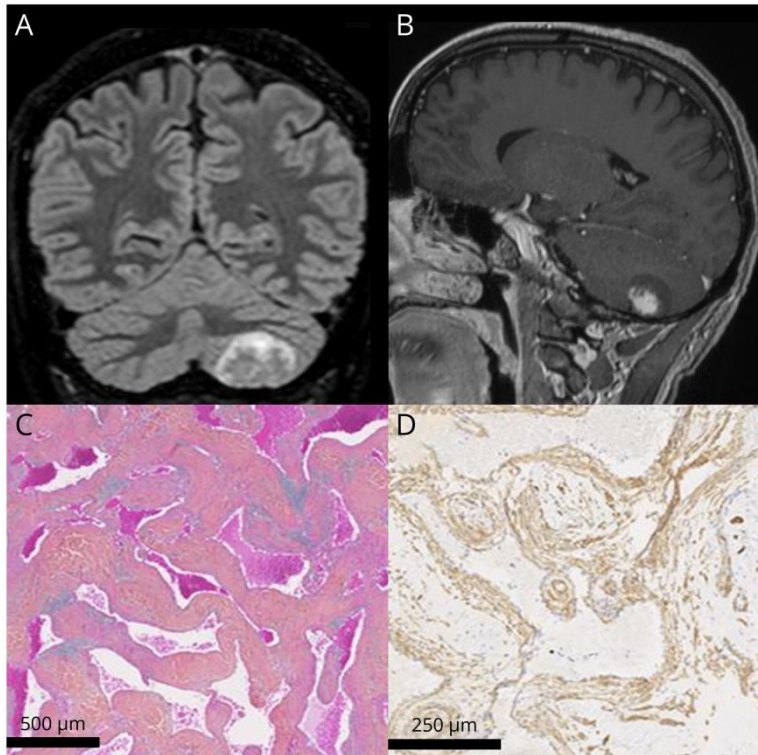
### Video: Dynamic study

Dynamic contrast-enhanced T1-weighted coronal view of a left cerebellar mass, displaying centrifugal enhancement

### Figure: MRI and neuropathology

MRI: coronal T2-FLAIR (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 anti-actin antibodies (D).



WNL-2023-001831\_vid1 --- <http://links.lww.com/WNL/D33>

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