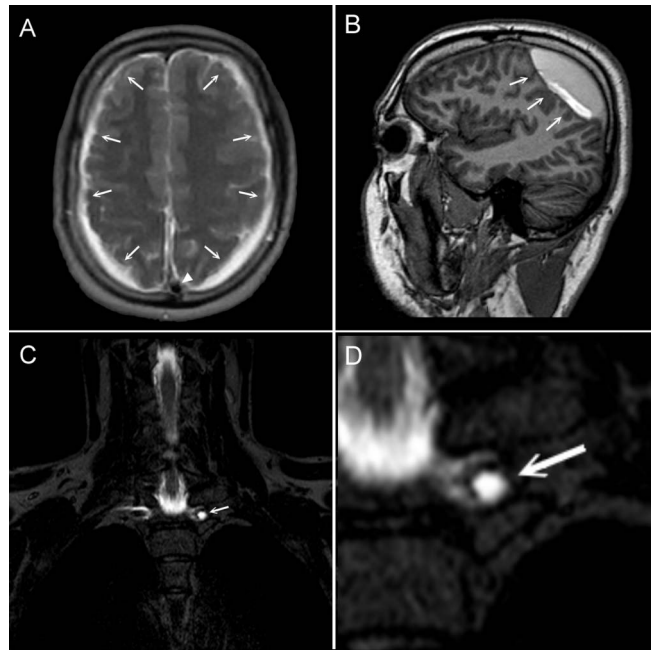


Teaching NeuroImages: A dangerous complication of spontaneous intracranial hypotension

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Figure MRI findings of a complicated case of spontaneous intracranial hypotension



(A) Turbo spin echo T2-weighted MRI shows bilateral subdural fluid collection causing effacement of subarachnoid spaces (arrows) and venous sinus engorgement (arrowhead). (B) On sagittal fast field echo T1-weighted image the subdural collection is hyperintense, consisting of subdural hematoma in a subacute stage (arrows). (C, D [zoomed]) Small radicular cyst in the left T1-T2 foramen (arrow).

A 43-year-old man presented with a nontraumatic orthostatic headache, spatial disorientation, and visual hallucinations (“colored flames”). General and neurologic examination were normal. Turbo spin echo T2-weighted MRI showed bilateral subdural fluid collection and venous sinus engorgement (figure, A), suggesting spontaneous intracranial hypotension (SIH). Two subdural hematomas were also found, the biggest (2.5 cm) with mass effect in the left hemisphere (figure, B). Spine MRI identified a small radicular cyst emerging from the left T1-T2 foramen as the putative cause of CSF leakage (figure, C and D). The patient underwent drainage of the largest hematoma with benefit. Though initially planned, epidural blood patch and surgical treatment of the radicular cyst were not performed because clinical and

radiologic findings improved with hematoma drainage, bed rest, and hydration. At a 3-month follow-up, MRI documented complete resolution of the subdural collection and dimensional stability of the radicular cyst. SIH is often considered benign and treated conservatively,¹ but it can rarely manifest with serious complications requiring rapid surgical evaluation.²

AUTHOR CONTRIBUTIONS

Claudio Tana: designed the manuscript, acquired the data, prepared the images, and wrote the clinical summary. Massimo Caulo: assisted in the collection and preparation of images. Emmanuele Tafuri: assisted in clinical summary and prepared images. Angelo di Vincenzo: obtained and prepared images. Marco Tana: obtained images. Maria Vittoria De Angelis: assisted in clinical summary. Andrea Mezzetti: supervised the manuscript. Maria Adele Giamberardino: supervised, revised, and edited the manuscript.

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REFERENCES

1. Schievink WI. Spontaneous spinal cerebrospinal fluid leaks and intracranial hypotension. *JAMA* 2006;295:2286–2296.
2. De Noronha RJ, Sharrack B, Hadjivassiliou M, Romanowski CA. Subdural haematoma: a potentially serious consequence of spontaneous intracranial hypotension. *J Neurol Neurosurg Psychiatry* 2003;74:752–755.

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