Reversible giant arachnoid granulations

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Figure CSF and blood compartment changes after depletive lumbar puncture

Axial T2-weighted image shows optic nerve tortuosities (arrowheads, A). Axial (B) and frontal (C) postcontrast T1-weighted imaging and magnetic resonance venography (D) reveal giant arachnoid granulations (GAG) (asterisks) and sinus lumen stenosis (arrows, B). Five days after lumbar puncture, optic nerve tortuosities (arrowheads, E), GAG (arrows, F–H), and sinus lumen stenosis (arrowheads, F) disappeared.

A 16-year-old boy with recurrent transient visual loss had bilateral papilledema. MRI revealed giant arachnoid granulations (GAG) in both transverse sinuses and signs of intracranial hypertension (figure). CSF opening pressure was 420 mm H₂O. After depletive lumbar puncture, the size of GAG decreased and sinus lumen stenosis resolved (figure). Arachnoid granulations (AG) are CSF herniations through dural defects into sinuses.¹ Since CSF removal led to their regression, GAG might be a consequence of intracranial hypertension. Our case supports the Krisch theory, which considers AG as a buffer of CSF compartment rather than a site of CSF absorption.²

Author contributions

G. Taieb: analysis and interpretation of data, drafting, critical revision of manuscript for intellectual content. C. Dargazanli: drafting and revision of manuscript, acquisition of data. P. Prin: acquisition of data, critical revision of manuscript for intellectual content. M. Charif:

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Disclosure

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