

Cerebral venous sinus thrombosis secondary to otomastoiditis: an unusual presentation

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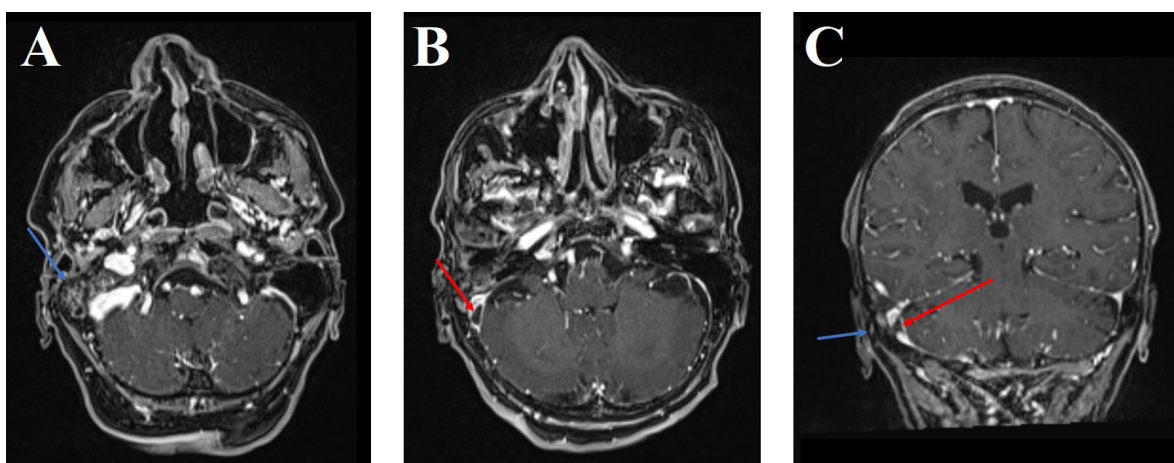
A 44-year-old man presented with headache, dizziness, confusion and a fainting episode. He became disoriented, unable to walk, and showed speech and hearing difficulties. History included diabetes mellitus and coronary catheterisation 2 years earlier. Magnetic resonance imaging (MRI) of the brain and temporal bones demonstrated left otomastoiditis, while MRI with venography detected segmental thrombosis involving the superior sagittal sinus and partial involvement of the left transverse sinus (Figure 1), a rare site compared to the usual sigmoid sinus involvement.^{1,2} The patient started physiotherapy, improving gait and mental status, though speech and hearing deficits persisted.

Before antibiotics, craniofacial infections were a common cause of cerebral venous sinus thrombosis (CVST), with mortality near 100%, now reduced

to less than 10%.³ Pathogenesis involves infection spreading through mastoid venules to adjacent sinuses, leading to mural thrombus formation.⁴ Headache, mental status changes and motor deficits are common clinical findings.³ MRI with venography is the most sensitive test for diagnosis, though some cases remain subtle.³

Management includes broad-spectrum antibiotics, typically ceftriaxone with clindamycin or metronidazole,^{1,3} and anticoagulation with low molecular weight heparin for 3–6 months, extended in prothrombotic states.³ This case highlights the importance of considering intracranial complications of otomastoiditis, even at atypical sites such as the superior sagittal sinus, and the pivotal role of MRI with venography in diagnosis and management.

Figure 1: Volumetric post-contrast magnetic resonance imaging (MRI) in axial (A, B) and coronal (C) planes demonstrates left otomastoiditis (blue arrows) and intraluminal filling defect within the left transverse sinus (red arrows), consistent with venous thrombosis. Subtle contrast opacification along the thrombus margins suggests partial recanalisation.



COMPETING INTERESTS

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