

Tension pneumocephalus and rhinorrhea related to chronic sinusitis

Pneumoencéfalo hipertensivo e rinorreia relacionados à sinusite crônica

Victor de Almeida Kosac¹, André PC Matta², Frederico M Prado¹, Osvaldo JM Nascimento², Gabriela DJ Matta³, Tereza CS dos Santos⁴

A 42-year-old woman presented with a sudden-onset severe headache associated with vomiting and a persistent aqueous rhinorrhea. She had an allergic chronic sinusitis. There was no history of head trauma. Neurologic exam disclosed papilledema. The computed tomography (CT) scan showed opacification of the left sphenoid sinus and pneumocephalus extending

from frontal region until convexity, compressing the supratentorial ventricular system (Fig 1). The cerebrospinal fluid (CSF) fistula was found in the left pterygoid process (Fig 2). Air probably came through the dural defect, and may have followed the CSF flow circuit. The physiopathology can be explained by bone defect, absence of nasal mucosa, and minor traumas^{1,2}.

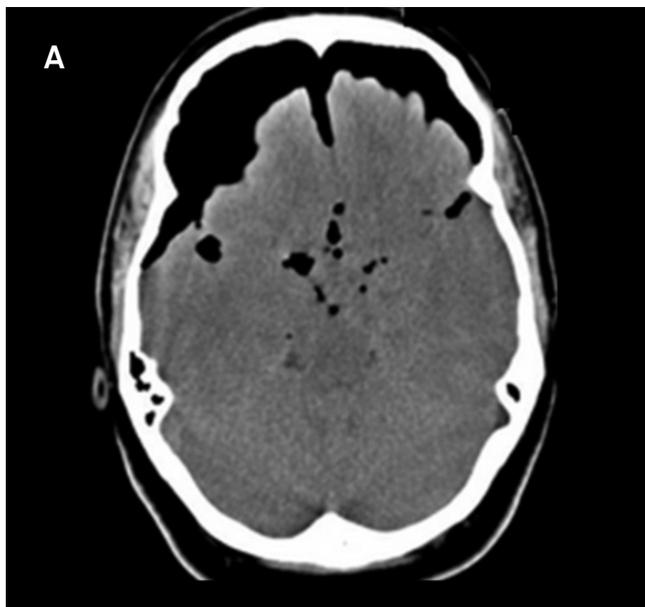


Fig 1. Computed tomography shows huge pneumocephalus extending from right temporal fossa and bilateral frontal region until convexity compressing supratentorial ventricular system.

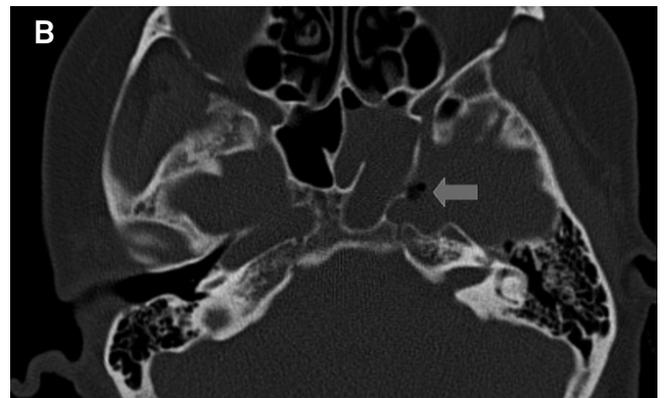


Fig 2. High resolution computed tomography shows opacification of the left sphenoid sinus and bone defect of the left pterygoid process (arrow) permitting the airflow through the fistula.

References

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¹Medical residents of Neurology, Department of Neurology, Federal Fluminense University, Niterói RJ, Brazil;

²MD, PhD, Professor of Neurology, Department of Neurology, Federal Fluminense University, Niterói RJ, Brazil;

³Ophthalmologist, Post-graduating program in Neurology and Neuroscience, Federal Fluminense University, Niterói RJ, Brazil;

⁴Radiologist at Antonio Pedro Hospital, Federal Fluminense University, Niterói RJ, Brazil.

Correspondence: Victor de Almeida Kosac; Rua Doutor Paulo César 25 / apto. 1.608; 24240-000 Niterói RJ - Brasil; E-mail: victorkosac@yahoo.com.br

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