

Critical basilar expansion of the sphenoidal sinus associated with a spontaneous cerebrospinal fluid fistula: the relevance of multidetector computed tomographic cisternography

Expansão basilar crítica do seio esfenoidal associada à fístula liquórica espontânea: a relevância da cisternotomografia computadorizada multidetectores

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A 46-year-old woman presented with an intermittent nontraumatic cerebrospinal fluid (CSF) left rhinorrhea. A multidetector computed tomographic (MDCT) study was performed to investigate a CSF fistula (Figure).

The sphenoidal sinus is prone to CSF leakage, when anatomical variations occur. The basilar expansion is a posterior expansion of the sphenoidal sinus (postsellar). It is considered critical for endoscopic surgery approach and also a

predisposing factor to spontaneous or posttraumatic CSF fistula when the posterior wall of the sphenoidal sinus is ≤ 2 mm thick¹.

Similar imaging reports in current literature are rare¹⁻⁴. Typical pattern on MDCT images, particularly after iodinated intrathecal contrast administration, reinforces its relevance to confirm the exact location of the CSF fistula for a proper surgical approach.

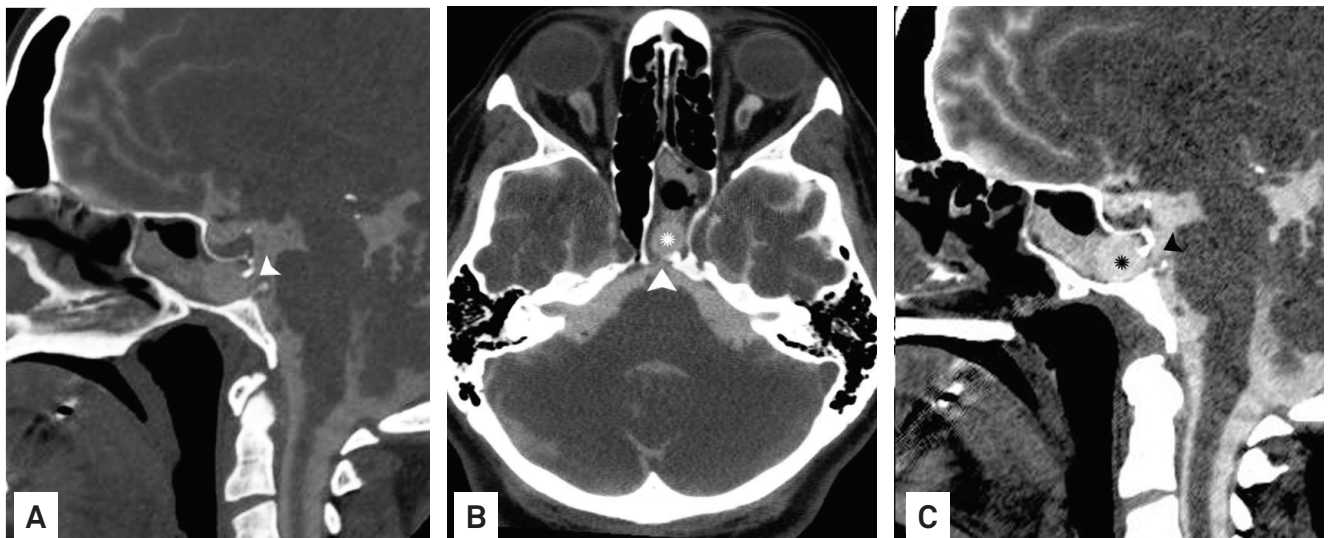


Figure. Multidetector computed tomographic images after intrathecal iodinated contrast administration. Bone window in the sagittal plane: (A) image clearly demonstrated a bone defect in a critical basilar expansion of the sphenoidal sinus (arrowhead); axial (B) and sagittal (C) planes using appropriate window confirmed spontaneous cerebrospinal fluid fistula (arrowhead) by showing contrast material filling the left sphenoidal sinus (asterisk).

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