Idiopathic sphenoidal defects detected by 3D computed tomography

Figure 1 Axial plain CT showing pneumocephalus (arrowheads) (A and B) and no bone defect in the posterior wall of the sphenoid sinus (arrows) (C–F)

A 38-year-old man with pneumococcal meningitis, pneumocephalus, and CSF rhinorrhea was admitted to our hospital. The CSF rhinorrhea had no traumatic or iatrogenic etiology. The patient was treated with meropenem and recovered from meningitis.

Axial plain CT showed pneumocephalus (figure 1, A and B), but no skull defects. Three-dimensional CT revealed defects of the posterior walls of the sphenoidal sinus (clivus) (figure 2A), which were not seen on plain CT (figure 1, C–F), although it was reported that clivus defects could be detected by axial plain CT.^{1,2} The defects were repaired with transsphenoidal surgery (figure 2B, see page 158).

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Figure 2 Three-dimensional CT and transsphenoidal surgery view of the clivus

Multiple defects in the clivus were demonstrated by 3-dimensional CT (orange circles) (A). In transsphenoidal surgery, a view from sphenoid sinus, almost corresponding to the opposite side of the black square of A, showed some perforations (black arrows) in the thin wall (B).

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