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## Neurological image

# Mount Fuji sign following otogenic meningitis

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A 56-year old male was admitted with bacterial meningitis following acute left-sided pneumococcal otitis media and mastoiditis. An initial computed tomography (CT) of the head, performed prior to a lumbar puncture, showed multiple intracranial air bubbles around the tentorium cerebelli, close to the left petrous bone and adjacent to the sella turcica. The patient was treated with ceftriaxon and dexamethason, and underwent paracenthesis of the left tympanic membrane. One week after admission the patient developed increasing headache and became progressively confused. A CT of the head was repeated and showed extensive pneumocephalus. A Mount Fuji sign was evident, indicating tension pneumocephalus that explains neurological worsening due to mass effect. No significant bony defects were identified on CT of the skull, skull base and paranasal sinusses. The patient fortunately gradually recovered in parallel with reduction of the intracranial air mass on CT of the head, without any specific intervention other than antibiotics. The location of the dural and bony defect in our patient remained elusive, despite further imaging studies.

Otogenic meningitis is the most common intracranial complication of acute otitis media and mastoiditis. Otogenic pneumocephalus however is a rare condition and may be a neurosurgical emergency. Tension pneumocephalus and the corresponding Mount Fuji sign on CT develop with trapped air accumulating in the subdural and interhemispheric space thereby separating and compressing the frontal lobes. The resulting profile on CT resembles the volcano Mount Fuji in Japan.

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