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Male with watery rhinorrhoea and disturbed consciousness after trauma

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DESCRIPTION

A 74-year-old man presented to the emergency department with slightly impaired consciousness (Glasgow Coma Scale (GCS): E3V5M6) after a fight while drinking alcohol. The next day, he developed a strong headache and gradually deteriorating consciousness (GCS: E3V4M6) with watery rhinorrhoea (see online supplementary video 1). CT showed air between the tips of the frontal lobes, the so-called 'Mount Fuji sign', with fractured bone within the anterior skull base 2 days after the trauma (figure 1A,B). The patient was admitted to the operating room for endoscopic reconstruction of the fractured area of the posterior wall of the frontal sinus (figure 2, white star). Withered brain parenchyma (figure 3, white dot) and a cerebral vein, (figure 3, white arrow) were seen with the endoscope (see online supplementary video 2) and reconstructed with fat and fascia from the thigh covered with bilateral inferior turbinate flap.The patient made a full recovery after the operation. Seventeen months passed after surgery with no evidence of recurrence based on both endoscopic evaluation and radiographic analysis.

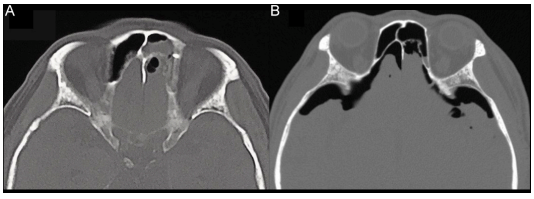

Figure 1 (A) CT with axial view on the day of trauma—small pneumocephalus around the tip of left frontal lobe. (B) CT with axial view 1 day after trauma. 'Mount Fuji sign'—the amount of air between the tips of the frontal lobes increased progressively.

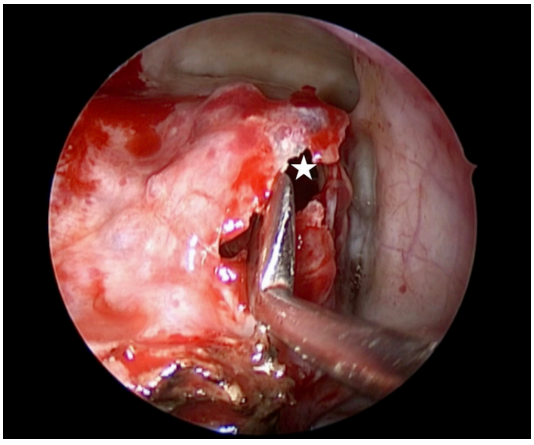

Figure 2 Endoscopic view of fracture site of the posterior wall of frontal sinus (star).

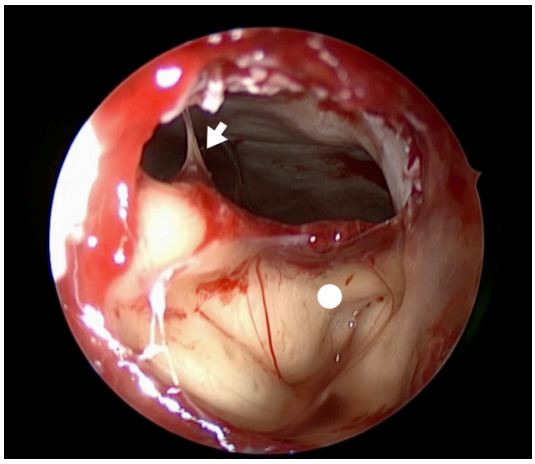

Figure 3 Endoscopic view of intracranial resion. Withered brain parenchyma (white dot) and a cerebral vein (white arrow).

Learning points

Tension pneumocephalus is an uncommon and life-threatening neurosurgical emergency that may lead to progressive brain compression resulting in deteriorating mental status. Immediate attention and proper management are required to prevent fatal complications.[1 2] The 'Mount Fuji sign' on brain CT is key to the diagnosis of tension pneumocephalus.[3]

Contributors TH designed the study and KO wrote the initial draft of the manuscript. NO contributed to analysis and interpretation of data, and assisted in the preparation of the manuscript. YT contributed to data collection and interpretation. KO critically reviewed the manuscript. All authors approved the final version of the manuscript, and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Competing interests None declared.

Patient consent Obtained.

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