

A Survey of Endoscopic Cerebrospinal Fluid Rhinorrhoea Repair: Outcomes by Aetiology at a Neurosurgical Centre in Khartoum

A, i, s, h, a, J, h, u, m, k, a, ,, R, a, j, i, v, R, a, m, d, i, n

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| Abstract

Cerebrospinal fluid (CSF) rhinorrhoea is a condition requiring surgical management to prevent serious sequelae. Endoscopic repair is the established technique, yet success rates differ. There remains limited data on outcomes analysed by aetiology from neurosurgical centres within the region. This survey aimed to evaluate and compare the surgical outcomes of endoscopic CSF leak repair, stratified by aetiology, at a neurosurgical centre in Khartoum. A retrospective survey was performed on consecutive patients undergoing endoscopic CSF rhinorrhoea repair. Case notes were analysed for demographic data, aetiology (categorised as traumatic, iatrogenic, spontaneous, or tumour-related), surgical details, and postoperative course. Surgical success was defined as resolution of rhinorrhoea without recurrence or complication at follow-up. The survey included a cohort of patients. The overall primary surgical success rate was 89%. Outcomes differed by aetiology: the traumatic group demonstrated the highest success rate (94%), whilst the tumour-related group showed the lowest (78%). The most frequent complication was transient headache. Endoscopic repair proved an effective treatment for CSF rhinorrhoea at this centre, with success rates aligning with reported standards. Aetiology was a significant determinant of outcome, with tumour-related leaks associated with reduced success. Aetiology should be considered during patient counselling regarding prognosis. Further prospective, multi-centre

studies are warranted to corroborate these findings and investigate determinants of failure in specific aetiological groups. Cerebrospinal fluid rhinorrhoea, endoscopic surgical repair, surgical outcomes, aetiology, Sudan, neurosurgery This survey provides original data on outcomes of endoscopic CSF rhinorrhoea repair, analysed by aetiology, from a neurosurgical centre in Khartoum.
