

Temporal bone encephalocele

Patients with [temporal bone encephalocele](#) and [cerebrospinal fluid leakage](#) commonly present with persistent [otorrhea](#) and conductive [hearing loss](#) mimicking chronic middle ear disease, which likely contributes to a delay in diagnosis. There is a high prevalence of obesity among this patient population, which may play a role in the pathogenesis of primary and recurrent disease.

The risk of severe neurological complications following the herniation of intracranial contents through a [tegmen tympani](#) defect necessitates prompt recognition and appropriate management. CT and MR imaging allows for definitive diagnosis ¹⁾.

Treatment

A middle fossa craniotomy or a combined mastoid-middle fossa approach incorporating a multilayer autologous tissue technique is a safe and reliable method of repair that may be particularly useful for large or multifocal defects, with adequate exposure of defects and support of intracranial contents.

Defect reconstruction using artificial titanium mesh should generally be avoided given increased risks of recurrence and postoperative meningitis ²⁾.

A patient was treated successfully via an intracranial approach. An enhanced layer-by-layer repair of the encephalocele and skull base deficit was achieved from intradurally to extradurally, using temporalis fascia, nasal septum cartilage, and artificial dural graft. After a 22-month follow-up period the patient remains symptom free and no recurrence is noted ³⁾.

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Jeevan DS, Ormond R, Kim AH, Meiteles LZ, Stidham KR, Linstrom C, Murali R. Cerebrospinal Fluid Leaks And Encephaloceles of Temporal Bone Origin: Nuances To Diagnosis And Management. World Neurosurg. 2014 Dec 13. pii: S1878-8750(14)01382-5. doi: 10.1016/j.wneu.2014.12.011. [Epub ahead of print] Review. PubMed PMID: 25514617.

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Carlson ML, Copeland WR 3rd, Driscoll CL, Link MJ, Haynes DS, Thompson RC, Weaver KD, Wanna GB. Temporal bone encephalocele and cerebrospinal fluid fistula repair utilizing the middle cranial fossa or combined mastoid-middle cranial fossa approach. J Neurosurg. 2013 Nov;119(5):1314-22. doi: 10.3171/2013.6.JNS13322. Epub 2013 Jul 26. PubMed PMID: 23889140.

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Blioskas S, Magras I, Polyzoidis S, Kouskouras K, Psillas G, Dova S, Markou K. Repair of Temporal Bone Encephalocele following Canal Wall Down Mastoidectomy. Case Rep Otolaryngol. 2014;2014:271824. doi: 10.1155/2014/271824. Epub 2014 Sep 22. PubMed PMID: 25328738; PubMed Central PMCID: PMC4189909.

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