

Diagnosis and treatment of occult cerebrospinal fluid otorrhea- Yi Haijin- Tsinghua University

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Objective: The purpose of this study is to investigate the diagnosis and surgical treatment of occult cerebrospinal fluid otorrhea including clinical manifestations, imaging features and surgical methods. **Methods:** A retrospective analysis of 25 cases of cerebrospinal fluid otorrhea misdiagnosed as meningitis in our department from 2007 to 2017 was analyzed including clinical manifestations, imaging examination and treatment. **Results:** There were 11 cases of cerebrospinal fluid otorrhea after trauma, 13 cases of congenital cerebrospinal fluid ear leakage and one case secondary to petrous bone cholesteatoma. The special clinical manifestations included recurrent otorrhea or rhinorrhea, fever, headache, unilateral deafness. All patients underwent radiological examinations including high resolution

enhanced computed tomography (HRCT), CT cisternography and magnetic resonance imaging (MRI). Procedures for surgical repair included transmastoid approach (n=12), trans-vestibular (n=1) or trans-labyrinthine approach (n = 12). **Conclusion:** The diagnosis and treatment of occult cerebrospinal fluid otorrhea were challenging and easily misdiagnosed. The characteristic clinical manifestations may provide important diagnostic clues. Radiographic examination including HRCT and CT cisternography may provide very important clues. According to different causes, different surgical techniques were taken to achieve good therapeutic effect.