CASE STUDY ON TYMPANOPLASTY FOR CHRONIC OTORRHEA

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ABSTRACT
Exiting of ear by discharge or drainage of fluids like material with or without fowl smell is medically termed as otorrhea. The reason behind occurrence of otorrhea is spinal fluid leak through the temporal bone. Temporal bone is the violation of bony and meningeal barriers that separate the subarachnoid space from the middle ear and mastoid. A 21 years old female patient was admitted in the female surgical ward with chief complaints of left ear discharge for many months. No smelling discharge observed on examination. Patient was not a known case of diabetes and hypertension. Patient was operated with tympanoplasty on the fourth day of admission. Tympanolasty is operated through the ear canal (transcanal approach), through an incision in the ear (endaural approach) or through an incision behind the ear (postauricular approach). Tympanoplasty is the very common surgical procedure operated for cases with chronic otorrhea with no history of head injury. American Association of Otolaryngology- Head and Neck Surgery (AAO - NHS) guidelines suggests tympanoplasty for chronic otorrhea.

INTRODUCTION
Exiting of ear by discharge or drainage of fluids like material with or without fowl smell is medically termed as otorrhea[1]. The reason behind occurrence of otorrhea is spinal fluid leak through the temporal bone[2]. Temporal bone is the violation of bony and meningeal barriers that separate the subarachnoid space from the middle ear and mastoid[3]. Which inter refers that the defect exists not only in the bone, but also in the dura matter. Otorrhea may be seen in patients in conditions of postsurgical, posttraumatic, congenital, and otologic disease[4]. Otorrhea is most commonly seen in children[5]. It is estimated that around 11% of population are affected each year with otorrhea in U.S. with as many as 709 million cases[6]. Chronic otorrhea affects about 5% of population with about 31 million of reported cases in which about 22.6% of cases are particularly reported in children less than 5 years of age[7]. Otitis media has resulted in about 2.400 deaths in the year of 2013 which was decreased from 4,900 deaths in 1990[8]. Vertigo and unsteadiness is reported by patients with otorrhea, along with discomfort or pain in both or one ear[9]. Sensation of the ear being stuffed up, constant pressure in the ear, slight or partial hearing loss and nose bleeding[10].

CASE STUDY:
A 21 years old female patient was admitted in the female surgical ward with chief complaints of left ear discharge for many months. No smelling discharge observed on examination. Patient was not a known case of diabetes and hypertension. Patient had no significant past medical history, no significant past medication and surgical history. Patient was immunized upto age, and is reportedly teetotaler and no habit of smoking. Based on the signs and symptoms and physical examination patient was diagnosed to have chronic otorrhea.
Table 1. Lab Investigations:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Observed value</th>
<th>Normal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin</td>
<td>9.0 g/dl</td>
<td>14-17 g/dl</td>
</tr>
<tr>
<td>ESR</td>
<td>36 mm</td>
<td>5-20 mm</td>
</tr>
<tr>
<td>TLC</td>
<td>15200 cells/mm³</td>
<td>4500-10,000 cells/mm³</td>
</tr>
<tr>
<td>DC</td>
<td>L- 56%, E-40%</td>
<td>N- 50-60%, E-1-4%</td>
</tr>
<tr>
<td>Platelets</td>
<td>2.65 cells/mm³</td>
<td>1.0-4.5 cells/mm³</td>
</tr>
<tr>
<td>PCV (%)</td>
<td>40%</td>
<td>40-53%</td>
</tr>
<tr>
<td>WBC</td>
<td>6400 cells/ml</td>
<td>4500-11000 cells/ml</td>
</tr>
</tbody>
</table>

Figure 1: Discharge from ear with chronic otorrhea

DISCUSSION:
Treatment plan for patient included prescription of drugs like injection cefotaxime at a dose of 1 gram to be administered intravenously twice a day to treat infection of the site, tablet paracetamol at a dose of 500mg and tablet diclofenac at a dose of 50mg to relieve pain at the site of infection, tablet ranitidine at a dose of 150mg once a day before meals to prevent stomach ulcers, injection ondansetron to treat vomiting sensation at a dose 20mg to be administered intravenously.

Surgical Treatment:
Patient was operated with tympanoplasty on the fourth day of admission. Tympanoplasty is operated through the ear canal (transcanal approach), through an incision in the ear (endaural approach) or through an incision behind the ear (postauricular approach). In short it is surgical operation performed for the reconstruction of the eardrum (tympanic membrane) and/or the small bones of the middle ear (ossicles).

CONCLUSION:
Tympanoplasty is the very common surgical procedure operated for cases with chronic otorrhea with no history of head injury. American Association of Otolaryngology- Head and Neck Surgery (AAO - NHS) guidelines suggests tympanoplasty for chronic otorrhea.

REFERENCES