

ABSTRACT

Conductive hearing loss occurs when sound conduction is impaired as a result of pathology in the external or middle ear. The external ear includes the pinna, which is the receptacle of sound and the external auditory canal through which sound passes onto the tympanic membrane. The middle ear is a space that has laterally the tympanic membrane and medially the cochlea connected by the ossicular chain that helps transmit sound optimally. In this study we are going to correlate preoperative clinical findings, audiological evaluation with peroperative findings of patients presenting with conductive hearing loss who came to our institution.

AIMS AND OBJECTIVES

1. To evaluate clinical findings in patients with conductive hearing loss
2. To evaluate audiological findings in same patients
3. To correlate above findings with peroperative findings, ossicular chain status and disease process in middle ear and mastoid ear cell system.

MATERIALS AND METHODS

This is a retrospective and prospective study carried over a period from November 2014 to August 2016. Total number of patients included in this study was 80.

RESULTS

Out of 80 patients studied 68.8% had tympanic membrane perforation. 31.3% had retracted TM. 32.5% had Active COM. 36.3% had inactive COM. In the perforation group, 12.5% had anterior perforation, 10% had posterior perforation, 26.3% had central perforation, 20% had subtotal perforation. In the retracted TM group, 25%

had adhesive otitis media, 2.5% had attic retraction, 3.8% had posterosuperior retraction. Hearing loss found to be more in patients with active COM with subtotal perforation(43.03db).Overall 17 patients (21.25%) had ossicular involvement. Most commonly involved ossicle was incus.

CONCLUSION

Most common cause of conductive hearing loss in our study was chronic suppurative otitis media. Most of the patients had central perforation followed by subtotal perforation. In perforated group, hearing loss was more in Chronic active otitis media with subtotal perforation and these group of patients had more ossicular involvement. It shows patients presents with chronic active otitis media with subtotal perforation will have high chance of ossicular involvement compared to chronic inactive otitis media due to these group of patients have more inflammation in middle ear and mastoid & more inflammatory infiltrates. Retracted group of patients should be evaluate more carefully ,because of their audiological findings and clinical findings doesn't correlate with intraoperative findings. Overall, patients with Active COM with subtotal perforation had more hearing loss and more ossicular involvement because of their active disease process and duration of complaint. Most of the patients had mild CHL (26-40 DB)(70%). We can assess the patient with conductive hearing loss pre operatively by using clinical findings & audiological methods which mostly correlates with peroperative findings.

Key Words: Tympanic Membrane, Anterior, Posterior, Central, Subtotal, Conductive Hearing Loss, Ossicular Chain Suffering, Perforation