

Original article:

HEARING OUTCOME AFTER CANAL WALL DOWN MASTOIDECTOMY IN SQUAMOSAL TYPE OF CHRONIC OTITIS MEDIA

¹Dr. Ajit Lokare*, ²Dr. Mukund Jadhav, ³Dr. Koustubh Khandake

¹Professor and Head, Department of ENT, RCSM GMC, Kolhapur

²Senior Resident, Department of ENT, RCSM GMC, Kolhapur

³Senior Resident, Department of ENT, RCSM GMC, Kolhapur

Corresponding author*

Abstract

Objective-To study Hearing outcome after canal wall down mastoidectomy in squamosal type of chronic otitis media.

Materials and method – It was a retrospective observational study in tertiary care center. 30 patients with COM of squamosal type who had undergone canal wall down mastoidectomy from January 2018 to December 2018 and were above 18 years of age were included. The patients who underwent CWDM for other indications were excluded. The data was collected from the patients during their routine postoperative follow up. Hearing assessment was done at interval of 3 and 6 months post-surgery and relevant data regarding effect on hearing was collected. The data collected analyzed statistically. Student's paired 't' test was used to compare the pre-operative and post-operative results.

Results–Otorrhoea was the most common presenting complaint(100%) followed by hearing loss (80%). Malleus was eroded in 50%, absent in 10% and normal in 40% cases. Incus was eroded in 63.33% , absent in 30% and normal in 6.66% cases. Stapes was eroded in 40% with absent suprastructure and was found to be normal in 60% cases. Overall 28 patients (93.33%) had ossicular erosion or absence. Incus was the most commonly eroded ossicle that was eroded or absent in all these 93.33% cases. No significant change in hearing loss was observed postoperatively in terms of mean ACT ($p=0.756$). No significant change was observed postoperatively in terms of mean ABG ($p=0.292$). Regarding ABG change postoperatively results were variable. Change within 10dB was regarded as “No change” which was seen in 36.66% of the patients. Same (36.66) % of the patients showed decreased ABG by 10dB or more that was interpreted as “improved ABG”. Rest 26.66% of the patients showed increased ABG by 10dB or more that was interpreted as “worsened ABG”. The results of improvement and worsening of ABG in the two groups A (Improved ABG) & C (Worsened ABG) were compared using Chi square test and the difference was statistically significant ($p = 0.048$). At 6 months postoperatively, 60% of the patients did not feel any change in the hearing status. 20% said there was improvement in the hearing and other 20% said their hearing decreased.

Conclusion– Our study showed that hearing can be preserved and in some cases, it can be even improved by performing tympanoplasty. The postoperative hearing after canal wall mastoidectomy showed mixed results postoperatively but majority of the cases had either improvement or no change in ABG indicating hearing can be preserved and improved in canal wall mastoidectomy with tympanoplasty. The postoperative hearing outcome depends upon many factors. However, presence or absence of the stapes suprastructure was the main factor deciding the effect on postoperative ABG. However, mere closure of ABG is not sufficient for improvement of hearing postoperatively.