

## **ABSTRACT**

### **“A COMPARATIVE ANALYSIS OF HEARING IN CARTILAGE OSSICULOPLASTY AND PARTIAL OSSICULAR REPLACEMENT PROSTHESIS OSSICULOPLASTY”**

**OBJECTIVE:-**To assess hearing outcome following autologous cartilage ossiculoplasty and PORP ossiculoplasty in patients with chronic otitis media, tubotympanic type with incus bone erosion alone. In this study, we compared pure tone average and air bone gap before and after surgeries and analysed the outcome.

## **INTRODUCTION**

Chronic suppurative otitis media is a common cause of conductive hearing loss in developing countries. Deafness is due to tympanic membrane perforation and also ossicular erosion. Incudostapedial joint is most commonly eroded region.. Ossiculoplasty material should be ideally biocompatible, stable, safe, affordable and easily available. In this study we compared autograft conchal cartilage with PORP.

## **MATERIALS AND METHODS**

This is a prospective cohort study of ossicular reconstructions done at ENT Department, Coimbatore Medical College. 40 patients between the age 15-50 years, who diagnosed with CSOM with ossicular erosion

and met the inclusion criterias were randomly assigned into two groups. 20 patients underwent cartilage ossiculoplasty and PORP ossiculoplasty done in other half. PTA done pre operatively and post operatively at the end of 3<sup>rd</sup> and 12<sup>th</sup> month and compared.

## **RESULTS**

The mean pre operative PTA of patients underwent cartilage ossiculoplasty found to be 43.9 ,reduced to 39 following surgery. Whereas preoperative mean PTA was 47.91 in PORP ossiculoplasty group, which improved to 37.26 following surgery. There was a hearing gain of 10.65dB following PORP ossiculoplasty. On an average, mean air bone gap reduction is about 5dB in cases underwent cartilage ossiculoplasty whereas 10.93dB for PORP, giving a p value of 0.01, making the result significant.

## **CONCLUSION**

With the available evidence ,this simple prosthesis, PORP found to significantly improve hearing results when compared to cartilage ossiculoplasty

## **KEY WORDS**

Cartilage ossiculoplasty, Chronic otitis media, Incus bone erosion, PORP ossiculoplasty, Pure tone average