Information/ Background

- This study is aimed to evaluate the role of endoscope in the management of dry central perforation of tympanic membrane.
- Total 50 patients underwent endoscopic tympanoplasty, between the time period of June 2017 to May 2018, at APOLLO ENT HOSPITAL BARMER RAJASTHAN.
- In this study, there was 96% Graft take up rate with endoscopic approach.
- The endoscopic approach has following advantages over microscopic approach:
  - ↓ operation time
  - ↓ post operative pain level
  - Better cosmetic results
  - Better surgical view with minimal incision
  - High success rate of graft take up
  - Better post operative hearing improvement &
  - Avoids end aural vertical and post auricular incisions.
- Thus endoscopic tympanoplasty can be a good alternative of microscopic tympanoplasty.
- Mer & colleagues introduced the middle ear endoscopy in 1967.
- An endoscope is an equipment used successfully in several procedures of many medical specialties.
- The endoscope has practically replaced the microscope for it offers
  - The excellent viewing of structures
  - Large angular image, viewing in several angles & magnification

Materials and Methods

- This study was conducted at APOLLO ENT HOSPITAL BARMER, RAJASTHAN.
- Between June 2017 to May 2018.
- All 50 patients underwent preoperative assessment with proper history; otoscopic & endoscopic examination; tuning fork test; xylcocaine sensitivity test; X-ray mastoid & X-ray pns; routine blood investigations.
- The 50 patients were between 12 to 60 years with dry central perforation, small & medium in size.
- Male to female ratio was 2:3
- According to PTA finding, 43 patients had pure conductive hearing loss (average 35-40 db) & 7 patients had mixed hearing loss (average 30-35 db).
- In 37 patients we used temporalis fascia & in remaining 13 patients tragal cartilage was used as graft material

Results

- From total of 50 cases with endoscopic approach, graft take up rate was 96% with only 2 cases of graft failure.
- Complete graft uptake rate was 97.29% & 92.38% for temporalis fascia graft & tragal cartilage graft respectively.
- The average time taken for each endoscope assisted tympanoplasty was around 60-70 minutes

Post operative results after 3 weeks

Conclusion

- The endoscopic approach has introduced a new perspective to ear surgery.
- Using this method, improved cosmetic outcomes & also, reduced postoperative morbidity.
- It can be performed & taught in academic institutions in the residency program in department of Otorhinolaryngology.