Learning Objectives:

Introduction: Despite the routine use of endoscopes for various operations in the fields of rhinology and later laryngology, endoscopic ear surgery (EES) has gained widespread popularity only over the last ten years. Although EES has some disadvantages such as the inherent feature of being a one handed technique and necessity of frequent cleaning of the instruments it also offers some major advantages like direct illumination and wide field wiew through ear canal.
In this study we aimed to present our experience in EES procedures.

Materials: Charts of 33 patients who underwent various EES in our department were retrospectively reviewed. Patient demographic characteristics, surgery types, hearing results and complications were evaluated

Results: Mean follow up time was 8,2 (6–24) months. Endoscopic stapedotomy was performed in 13, endoscopic tympanoplasty and/or ossiculoplasty was performed in 9 patients. Hydroxyapatite bone cement was used to rebridge the defects between incus and stapes in 4 patients and a PORP was used for ossiculoplasty in one case. Inside out mastoidectomy with manibriostapediopexy using hydroxyapatite bone cement was performed in one case. In 10 patients endoscope assisted cochlear implantation was performed due to the difficult access to the round window under direct microscopic vision. Mean pre and postoperative air bone gaps (ABG) for stepedotomy operations were 29,1 ± 9,1 and 9,4 ± 6,8 dB respectively. Mean pre and post operative ABG for endoscopic tympanoplasty and/or ossiculoplasty operations 27,8 ± 10,7 and 11,3 ± 7,6 dB. No graft perforation or detoriation in hearing thresholds were seen in any of the cases.

Conclusion: Our results show that EES can safely be performed in the majority of the middle ear procedures with similar or better outcomes to conventional microscopic approach.

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Update in ossicular reconstruction: Ossicular Replacement Prostheses (ORP), bone cement and new assembly techniques (N673)

ID: 673.4

Manubriostapedioplasty

Presenting Author: **Levent Sennaroglu**

Levent Sennaroglu
Hacettepe University School of Medicine

Learning Objectives: The author developed a technique called manubrio-stapedioplasty using glass ionomer cement for malleus and incus fixation due to tympanosclerosis and congenital fixation. Method: this method can be used in situations where malleus and incus are fixed but stapes is mobile. Head of the malleus and incus are removed and manubrium is connected to the head of the stapes with glass ionomer cement. In a group of five patients with conductive hearing loss mean pre-operative air-bone gap of 42.75 dB, and mean post-operative air-bone gap was 5.25 dB. This method can also be used in situations with fixation of all ossicles. Here the stapes is mobilized after removing of all tympanosclerotic plaques but the postoperative hearing results are not as good as situations where stapes is mobile. During this presentation videos of different patients will be provided showing the technique.

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Endoscopic Ear Surgery 1 (R674)

ID: 674.1

Transitioning to Endoscopic Ear Surgery and Training the Next Generation

Presenting Author: **Manuela Fina**

Manuela Fina
Assistant Professor, University of Minnesota

Objective: The objective of this presentation is to illustrate the learning curve of a surgeon who transitioned to Endoscopic Ear Surgery and the surgeon's creation of a teaching program in a U.S. residency program.

Methods: A 5 minutes educational video with 3 power point slides illustrating learning curve, tips, take home points and conclusions.

Results: The surgeon will illustrate the initial difficulties and challenges that can delay the transition and adoption of the primary endoscopic approach, how many cases does it take to fully transition to Endoscopic Ear Surgery, the modifications in OR set up and surgeon's position with time and skill acquisition, utilization of endoscopy in the office setting for chart documentation and patients' education.

The surgeon will present a personal experience in teaching the residents a new surgical technique and creating a structured educational program with goals and skills to achieve according to resident's level of training.