

of view. Subsequently, we identified several key molecular biomarkers, CHRM1, EPO, SOS1, ESR1, CD4, and IFNA1.

Conclusions: In conclusion, our results might ascertain related cell process and signaling interacted genes underlying DEP exposure and its effects. Moreover, the discovered biomarkers can be recognized as potential candidates for developing early diagnosis and effective treatment strategies of DEP-mediated disorders.

Learning Objectives: We discovered potential molecular biomarkers and pathways triggered by DEP exposure in rodent model.

doi:10.1017/S002221511600596X

ID: IP100

Do we always need gelfoam packing in the middle ear cavity during tympanoplasty?

Presenting Author: **Woo Jin Kim**

Woo Jin Kim, Ji Sun Kong, Jamil AL-Swiahb, So Young Park, Chang Yeong Jeong, Dong Kee Kim, Sang Won Yeo, Shi Nae Park

Seoul St. Mary's Hospital The Catholic University of Korea, College of Medicine

Learning Objectives:

Objectives: A modified overlay tympanoplasty, also known as a lift and repositioning tympanoplasty, has been developed to overcome the disadvantages of the conventional technique. Since fascia is placed over the annulus in this technique, a novel hypothesis that a support of gelfoam in the middle ear cavity would not be necessary has been formed.

Methods: We retrospectively analyzed the surgical outcomes of our modified overlay tympanoplasty to prove whether the outcomes depend on middle ear gelfoam packing during the surgery. A total of 227 chronic otitis media patients who underwent modified overlay tympanoplasty (Type I) with sandwich technique by a single surgeon were included in this study.

Results: The mean age was 49.0 years and the male: female ratio was 76:151. The mean follow up period was 26.3 months (6–94 months). Patients were divided into two groups according to whether or not gelfoam packing was performed in the middle ear cavity; the gelfoam (GG, N = 105) and no-gelfoam groups (NG, N = 122). Graft uptake rates, postoperative hearing levels, and complication rates were compared as the measures of surgical outcomes. The graft uptake rates of each group were up to 99.1% in GG (104/105) and 99.2% in NG (121/122). The air-bone gap significantly decreased after surgery without statistical difference between the groups. Postoperative complications such as epithelial cyst and lateralization occurred very rarely in both groups, and the rates showed no significant differences between two groups.

Conclusions: In conclusion, we suggest that gelfoam packing in the middle ear is not a mandatory procedure during a modified overlay tympanoplasty. Further investigation to find the

clinical advantages of no-gelfoam technique during tympanoplasty is needed in a prospectively designed clinical trial.

doi:10.1017/S0022215116005971

ID: IP101

Paediatric transcanal endoscopic ear surgery

Presenting Author: **Taisuke Kobayashi**

Taisuke Kobayashi, Masahiro Komori, Masamitsu Hyodo
Kochi Medical School

Learning Objectives: TEES is safe and effective for treating children with middle ear disease.

Introduction: Recent advances in endoscopy have led to the development of transcanal endoscopic ear surgery (TEES). In the last decade, TEES usage has increased dramatically worldwide as a minimally invasive surgery with excellent middle ear visualisation and optical surgical manipulation. TEES may be suitable for treating children with middle ear disease. In this study, clinical features and postoperative results in paediatric TEES cases were investigated to understand the feasibility of TEES in children with middle ear disease.

Materials and Methods: Medical records of 28 paediatric patients (age:

Results: of the 16 male and 12 female patients (mean age: 7.3 years; range: 1–17 years), 8 had left ear disease, 19 had right ear disease, and 1 had bilateral congenital cholesteatoma. They included 20 cholesteatoma, 5 ossicular disruptions, 2 chronic otitis media, and 1 perilymphatic fistula. Tympanoplasty types included 18 type I, 3 type III, and 6 type IV. For three cholesteatoma cases, staged-operations were performed. In an ossicular disruption case, re-operation was needed because of remaining air-bone gap. There was no recurrence of cholesteatoma until now. The diameter of narrowest portion of ear canal (anterior-posterior) on the axial computed tomography was 5.6 mm (mean). Postoperative hearing results were acceptable, with no surgical complications.

Conclusions: Our results suggest TEES as a safe, effective treatment for children with middle ear disease, notably, paediatric chronic otitis media without a mastoid lesion, ossicular disruption, or early-stage congenital cholesteatoma.

doi:10.1017/S0022215116005995

ID: IP103

Usefulness of Anterior-Based Periosteal(Palva) Flap for Obliteration of Mastoid Cavity in Canal Wall Down Mastoidectomy

Presenting Author: **Soo-Keun Kong**
Soo-Keun Kong

Pusan National University Hospital