Conclusions: Currently, no single test or imaging modality can be used to diagnose ET dysfunction, but there is some evidence that diagnostic accuracy can be improved by combining the results of different objective tests and patient-reported outcome measures. Further development of ET function tests is required to facilitate the accurate diagnosis of patients and allow outcome reporting for new interventions.

doi:10.1017/S0022215116002917

Free Papers (F732)

ID: 732.1

Surgery of Cholesteatoma in Pediatric Age: Assessment of combined micro-endoscope approach

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Learning Objectives: Use of endoscopy in ear surgery is an interesting technique by offering the possibility to be less invasive.

Introduction: Cholesteatoma in pediatric age is aggressive and necessitates an extensive surgical approach to eradicate the pathology and a long time follow up. Introduction of otoendoscopy lately gave a cue to reconsider certain standardized techniques. The aim of this study is to survey how endoscopy is evolving in our daily practice and the preliminary results obtained.

Methods: Review of medical charts of patients underwent tympanoplasty between January 1995 and December 2014. Data collected included age, sex, features of cholesteatoma, type of tympanoplasty (TPL): trascanal (TC), canal wall up (CWU) or canal wall down (CWD), technique used: microscope and or endoscope, revision surgery for recidivism. Comparison was done on surgical techniques applied before and after the introduction of endoscopy in our department, 2010.

Results: Ninety-three children, 57 M and 36 F, average age 10 (range 3 to 16) were identified for the study. Seven patients had bilateral cholesteatoma. Tympanoplasties performed were 186 divided as follows: **63%** (63/100) **CWU**, 15 of which underwent a second look CWU and 25 underwent a second look CWD. **20%** (20/100) **CWD** where in 10, 2 and 1 cases underwent a second, third and fourth look, respectively. Finely, **17%** (17/100) underwent **TC** where 7 underwent a second look TC. Three out of the 7 underwent a third look and were converted in 2 cases to CWD and in 1 case to CWU. Before and after the introduction of endoscopy the corresponding 56 and 44 first look procedures were performed as follows: CWU 57% vs 45%, CWD 27% vs 16% and TC 16% vs 39%, respectively.

Conclusions: Otosurgery tends to be less invasive by avoiding mastoidectomy. Endoscopic cholesteatoma removal should be limited to disease interesting only the tympanic cavity. A long time follow up is necessary in order to compare the real benefit of endoscopy.

doi:10.1017/S0022215116002929

Free Papers (F732)

ID: 732.2

Practicality analysis of JOS staging system for congenital cholesteatoma: Japan Multicenter study (2009–2010)

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Learning Objectives:

Introduction: Potsic classification has been widely used as the classification of congenital cholesteatoma. According to this classification, destruction of ossiculs is one of the important points. And the stage will be progressed if the ossicular chain is destructed even in the case of small cholesteatoma which is limited in tympanic cavity. The committee on Nomenclature of the Japan Otological Society (JOS) was appointed in 2004 to create a cholesteatoma staging system widely applicable in Japan and as simple as possible to use in a clinical practice. We introduce our staging system about congenital cholesteatoma.

Methods: A total of 599 ears that underwent surgery for fresh cholesteatoma between 2009 and 2010 at 6 institutions in Japan were recruited and cases with congenital cholesteatoma were selected. In order to know the progress site reliably, we selected strictly the cases which could be obtained surgical records in details. We evaluated the progression of cholesteatoma according to the 2015 JOS cholesteatoma staging and classification system as followed;

Stage I: limited in tympanic cavity (Ia;anterior part, Ib;posterior part, Ic; both of them)
Stage ll: beyond tympanic cavity
Stage III: associated with intratemporal complications
Stage IV: associated with intracranial complications

Results: Seventy one ears of 599 ears were diagnosed for congenital cholesteatoma and 37 ears of 71 have been studied. Six ears were classified for Stage Ia, 11 ears for lb, 1 ear for Ic, 17 ears for II and 2 ears for III. Concerning about the pathology of stapes in Stage l, the missing rate of stapes superstructure was 0%, 54.5% and 100% in Stage Ia, Ib and Ic, respectively.

Conclusions: Congenital cholesteatoma which was limited in tympanic cavity was different in stapes status by the part of existence of cholesteatoma. Especially in this study, Stage Ib was