

Conclusions: We propose a new, simple and clinically practical tegmen CT classification using the LSCC as our landmark. Tegmens below 4.5 mm on coronal measurement and 2.5 mm on sagittal measurement are considered “low” (type A) whereas tegmens above these parameters are considered “high” (type B). This classification system applied to preoperative temporal bone CT might influence planning of middle ear and mastoid surgery. Our retrospective analysis of recent mastoidectomy patients showed that “low” tegmens were more likely to require a canal wall down mastoidectomy whereas “high” tegmens were more likely to require a canal wall up mastoidectomy.

doi:10.1017/S0022215116005545

ID: IP058

Factors Affecting Hearing Aid Satisfaction in a Singapore Population

Presenting Author: **Eu Chin Ho**

Eu Chin Ho

Tan Tock Seng Hospital

Learning Objectives: Hearing aids greatly improves the quality of life in patients with hearing loss. Elderly patients with severe hearing loss and those who are fitted with bilateral Hearing aids benefited the most from their usage.

Introduction: This study analyzes factors that affect severity of hearing loss (HL) at presentation and hearing aid usage pattern among the Singapore hearing aid users.

Methods: Retrospective study with 643 subjects identified from audiometric records. Demographics (age, gender, race), Pure Tone Audiometry average (PTA0.5, 1, 2, 4 kHz), HA laterality (unilateral, bilateral), HA type and daily usage duration (<4hours, 4–7hours, >7hours) were collected. Severity of HL was classified as mild HL (21–40db), moderate (41–70db), severe HL(>71db).

Results: Patients had a mean age of 73.1 years (range: 22–113 years old). Patients presenting with mild HL were significantly younger than those with moderate-severe HL (64.1years vs 73.5years, $p < 0.001$). There were 327 males and 316 females, and gender did not influence severity of HL at presentation.

Race proportion was Chinese 87.9%, Malay 4.2%, Indian 5.8%, others 2.2%. Less Malay patients sought help for HL compared to the national racial composition.

Amongst the Malay patients, 48.1% of them had severe HL, which was the highest proportion within an ethnic group compared to 26.7% of Chinese 26.7%, 37.8% of Indian and 7.1% of other races; $p = 0.001$. This suggested that Malay patients usually presented late for their hearing problems. Mean age of Malay patients is younger than that of non-Malay patients (70.3years vs 73.2years, $p = 0.235$).

Lastly the more severe the HL, the longer the duration of daily HA usage. Most (45.8%) of the patients with severe HL use HA for more than 7 hours daily (vs. 25.3% for 4–7hrs, 22.5% for <4hrs, $p = 0.016$). Unilateral HA was more popular than bilateral HA in all degree of HL.

Conclusion: Younger patients presented with milder degree of hearing loss. Though less Malay patients sought treatment for HL, they mostly presented with greater hearing loss severity at a younger age. Severity of hearing loss led to longer daily usage of HA.

doi:10.1017/S0022215116005557

ID: IP059

Hearing impairment among Nasopharyngeal Cancer (NPC) survivors

Presenting Author: **Eu Chin Ho**

Eu Chin Ho¹, Yue Yu², Seth Yeak²

¹Tan Tock Seng Hospital, ²Yong Loo Lin School of Medicine, National University of Singapore

Learning Objectives: To evaluate hearing impairment and other otological symptoms in NPC survivors To evaluate hearing aid usage in this population of patients.

Introduction: As the treatment outcome for nasopharyngeal cancer (NPC) patients continues to improve, there is an increasing pool of survivors. The treatment is not without its costs and many survivors suffer from hearing impairment that can lead to deterioration in quality of life. Hearing aids may help but uptake is generally low. We seek to investigate hearing and ear problems as well as acceptance of hearing aids among NPC survivors.

Methods: A cross-sectional survey was conducted among 35 NPC survivors who attended 2 NPC educational talks.

Results: Among the 35 patients recruited, 77% have hearing problems with 5 having both ears affected. The mean duration to onset of hearing loss post treatment is 3.08 years. Treatment modality (Chemoradiotherapy vs Radiotherapy only) did not affect prevalence and degree of hearing loss. Among those with self-reported hearing problems, 43% thinks that the hearing loss is moderate to severe, and more than 50% feels that it has caused them disability; a common reason cited was difficulty in communication. However, only 30% of patients are currently using hearing aids. Severity of hearing loss and hearing aid usage were correlated with $r = 8.563$, $p\text{-value} = 0.003$. Interestingly, 47% of the patients with hearing problems were never offered hearing aids during the follow-ups. Among those who are currently wearing hearing aids, only 63% wear it for more than 8 hours per day. Besides hearing impairment, 14% have recurrent ear infections and 26% needs to have their ears cleaned regularly. 87% of the patients suffers from other otological symptoms, the most common being tinnitus and sensation of blocked ears.

Conclusion: Hearing impairment is a common problem, causing significant disability among NPC survivors. However, usage of hearing aids is low. Our results suggest that beyond the surveillance of cancer recurrence, physicians should take an active role in assessing patient’s hearing impairment and suitability of hearing aids.