



Canadian Society of Otolaryngology-Head and Neck Surgery

74th ANNUAL MEETING (Virtual)
September 26 – November 14, 2020
“Quality and Excellence in Otolaryngology-Head and Neck Surgery”

Tuesday October 27, 2020 @ 9:05 p.m.

Otology - Moderators Dr. Andrew Ma & Dr. Sumit Agrawal

09:05 p.m. - 09:10 p.m.

Motivational Interviewing for Hearing Aids: A Systematic Review Analyzing the Potential Benefits for Adult Patients with Hearing Loss - A. Liu, B. Wu, D. Nunez, Vancouver, BC

Learning Objectives

1. By the end of this session the audience will be able to describe the current literature on motivational interviewing as an intervention to increase hearing aid use; 2. By the end of this session the audience will understand the potential implications of counselling techniques on patient reported outcomes.

Abstract

Objectives: To determine the impact of motivational interviewing (MI) on hearing aid use compared to standard care. Secondary outcomes include determining MI associated adverse effects and patient reported benefit. **Methods:** Systematic meta-analysis. This study was registered on the international prospective register of systematic reviews (PROSPERO). The Cochrane ENT, Central, Medline, Web of Science, ICTRP, and ClinicalTrials.gov electronic databases were searched following PRISMA statement guidelines. Keywords included “hearing aid” OR “amplification” OR “ earmould” OR “ ear mold”, AND “motivational interviewing” OR “counselling”. Inclusion criteria were randomized controlled trials (RCT) published between 1988 and 2018 that compared MI to standard care. Abstracts were reviewed and data extracted by two independent reviewers. RevMan 5.3 and a random effect model were used for analysis. **Results:** 626 articles were identified across the study databases. Three RCTs and one trial protocol, investigating a total of 176 patients, were analyzed. The standardized mean difference for data-logged hours was 0.34 with a 95% confidence interval of [-0.09, 0.78; P = 0.12]. The mean difference for user-reported outcomes on the International Outcome Inventory Hearing Aids was 0.41 with a 95% confidence interval of [-1.01, 1.83; P = 0.57]. There were no reported associated adverse effects. **Conclusions:** This is the first meta-analysis reported examining the literature on MI for hearing aid use. There is no current evidence that MI significantly improves hearing aid use or user experience.

09:10 p.m. - 09:15 p.m.

Rationing Rotational Magnet Cochlear Implant Technology in a Single Payer Healthcare System - C. Andrews, J. Pisa, J. Hochman, Winnipeg, MB

Learning Objectives

At the end of this presentation, members will: 1. Understand our centre's approach to development of a rationing schema for MRI compatible cochlear implant devices. 2. Appreciate the intricacies in balancing the cost of implant devices with the increasing wait times this will create. 3. Learn which population of cochlear implant patients in our centre had higher rates of imaging.

Abstract

Introduction: In a publicly funded health care system, fiscally responsible management of any program is required. This is especially pertinent as evolving technology and associated incremental costs, places pressure on device availability within a fixed funding envelope. The application of rotational magnet technology and associated escalating surgical wait times must be able to be justified to patients and the single-payer. **Objective:** We present a single cochlear implant centre's attempt at a rationing schema for magnetic resonance compatible cochlear implantation. **Methods:** Contrasting approaches to rationing care are evaluated and deliberated. We attempt to develop a decision-making schema that maximizes the number of patients to receive a CI while rationing the distribution of a rotational magnet technology to similarly situated individuals most likely to benefit. **Results:** We elect to provide rotational magnet technology

to select patient cohorts. This is based on the dominant imaging needs of these populations and the probability of requiring recurrent imaging studies. We consider this an ethical approach grounded in the egalitarian principle of equality of opportunity within cohorts of patients. **Conclusion:** Given finite resources, increasing per unit cost will unavoidably extend wait times for adult patients. Our approach does not afford similar implant devices for all patients, but rather all similarly situated individuals. Therefore, access to a scarce medical resource requires program rigor and a formalized policy around candidacy for emergent technology.

09:15 p.m. - 09:20 p.m.

Discussion

09:20 p.m. - 09:25 p.m.

Contemporary Assessment of the Safety and Clinical Outcomes of Single Stage Ossiculoplasty in Chronic Otitis Media Surgery - A. Al-Sayed, N. Shoman, Halifax, NS

Learning Objectives

By the end of this session, the audience should gain an appreciation of the two approaches of middle ear reconstruction in COM. By the end of this session, the audience should have a better understanding of the merits of primary versus secondary ossiculoplasty. By the end of this session, the audience should have a better understanding of potential indications in which primary ossiculoplasty may be suitable.

Abstract

Background: Otologists have often advocated staging ossiculoplasty in chronic otitis media (COM) surgery. Reasons cited include the need for a second look to rule out cholesteatoma recurrence, better hearing results with staging, and concerns of prostheses displacement into the vestibule with primary ossiculoplasty. Nevertheless, there is very little published in the literature assessing primary ossiculoplasty safety and clinical outcomes. **Objective:** To assess the outcomes of primary ossiculoplasty for COM with and without cholesteatoma in adult and pediatric patients. **Methods:** A retrospective review of all patients who underwent mastoid surgery for COM between September 2012 and September 2017. Surgeries were performed by the same surgeon using the same prostheses. Charts were reviewed for patient demographics, operative data, and postoperative clinical and audiometric outcomes. Exclusion criteria included surgery for an indication other than COM, and those lost to follow up. **Results:** 188 patients met study criteria, of whom 144 were 18 years and 74 <18 years of age. Sixty-eight (36%) had COM with cholesteatoma. Seventy-six (40%) underwent primary ossiculoplasty. Of those, 37 (49%) had a total prosthesis, and 39 (51%) partial prosthesis. At one year, 23 (62%) of the total prostheses and 33 (85%) of the partial prosthesis patients had air-bone gap closure of ≤ 20 dB. There were no cases of prosthesis displacement into the vestibule, and overall extrusion was 3.5%. **Conclusions:** Results of this study suggest that primary ossiculoplasty is safe with favorable audiometric outcomes. Potential benefits include faster auditory rehabilitation and potentially avoiding the need for a second look procedure.

09:25 p.m. - 09:30 p.m.

Virtual Reality for Vestibular Rehabilitation: A Systematic Review of Randomized Controlled Trials - M. Xie, K. Zhou, N. Patro, T. Chan, M. Levin, M. Gupta, J. Archibald, Hamilton, ON

Learning Objectives

By the end of this session, one will be able to 1) Describe the current literature on randomized, controlled trials for virtual reality-based vestibular rehabilitation. 2) Evaluate the strengths and limitations of the current literature on virtual reality-based vestibular rehabilitation. 3) Appreciate next steps to enhance quality and standardization of future studies

Abstract

Introduction: Vertigo is a debilitating symptom that may decrease quality of life, leading to increased healthcare utilization and lost patient productivity. Vestibular rehabilitation is used to manage stable but poorly compensated vertigo. However, vestibular rehabilitation is limited by accessibility and time commitment. Recently, virtual reality has been described as a vestibular rehabilitation tool that may circumvent these barriers to treatment. Despite this, the efficacy of virtual reality for vestibular rehabilitation remains unclear and unstandardized. Hence, this study aims to review and summarize the current literature on virtual reality-based vestibular rehabilitation. **Methods:** A systematic review of the Medline, Embase, and Alternative and Allied Medicine databases was conducted for randomized, controlled trials (RCTs) describing virtual reality-based vestibular rehabilitation. **Results:** Our search identified 37 articles. Final inclusion consisted of five RCTs. Study populations ranged from 16 to 70 participants and varied in diagnoses from any unilateral peripheral vertigo to specific pathologies. Different virtual reality interventions were used. Comparator groups ranged from supervised vestibular rehabilitation to independent Cawthorne-Cooksey exercises. Outcomes consisted of validated questionnaires (e.g. dizziness handicap inventory, sick simulator questionnaire) and objective tests (e.g. head impulse test) and measurements of balance (e.g. vestibulo-ocular reflex gain, posturography). **Conclusion:** These five RCTs are preliminary evidence to suggest the benefit of virtual reality-based vestibular rehabilitation. However, these RCTs are limited by their inclusion criteria, heterogeneity, comparator design, and evidence-based clinical outcomes. Further research should address these limitations.

09:30 p.m. - 09:35 p.m.

Quality Indicators for the Diagnosis and Management of Meniere's Disease - E. Monteiro, J. Cottrell, Toronto, ON, S. Agrawal, J. Archibald, Hamilton, ON, J. Chau, Calgary, AB, V. Lin, Toronto, ON, P. Mick, Vancouver, BC, D. Morris, Halifax, NS, L. Parnes, London, ON, D. Schramm, Ottawa, ON

Learning Objectives

1. By the end of this session, Otolaryngology & Head and Neck Surgeons will have a better understanding of how quality indicators are developed and their role in quality improvement initiatives 2. By the end of this session, Otolaryngology & Head and Neck Surgeons will learn four quality indicators that can be utilized within their practice or institution to improve the quality of care provided to patients with Meniere's disease

Abstract

Introduction: Meniere's disease (MD) is a clinical disorder often providing diagnostic and management challenges. High quality evidence is sparse to guide care providers which can result in practice variations and substandard care. Quality indicators (QIs) are one means of standardizing accepted care practices to improve healthcare quality and patient outcomes. We sought to develop practical high yield QIs that serve to measure and inform the quality of care provided to patients. **Methods:** A guideline-based approach, proposed by Kotter et al (2012) was utilized. Candidate Indicators (CIs) were extracted from existing guidelines, with supporting evidence summarized and reviewed by a nine-member expert panel. CIs were evaluated based on their validity, reliability, and feasibility of measurement. Final QIs were selected from CIs utilizing the modified RAND/UCLA appropriateness methodology. **Results:** Twenty CIs were identified after literature review. After the first round of evaluations, the panel agreed on three candidate indicators as appropriate QIs. A subsequent expert panel meeting provided a platform to discuss disagreements. Two agreed upon QIs were revised during this discussion before final evaluations. The expert panel agreed upon four final QIs as appropriate measures of high-quality care. **Conclusions:** This study proposes four QIs that cover key aspects of MD care such as accurate diagnosis and management options including initial destructive therapies. These QIs can serve multiple purposes including documenting the quality of care; comparing institutions and providers; prioritizing quality improvement initiatives; supporting accountability, regulation, and accreditation; and pay for performance initiatives.

09:35 p.m. - 09:40 p.m.

Discussion

09:40 p.m. - 09:45 p.m.

Validation of ENG Results – A. Beaumont, B. Blakley, Winnipeg, MB

Learning Objectives

Interpretation of ENG results in the context of DHI scores, patient dizziness and co-morbidities

Abstract

Background: Dizziness is a common medical complaint and can affect daily functioning. The Dizziness Handicap Inventory (DHI) has been used to assess severity of dizziness in patients and is correlated with substantial disability. There are minimal studies relating the prognosis and recovery of dizziness based on vestibular testing results. This study aims to provide a relationship between ENG results, severity of dizziness and poor functional outcomes. **Methods:** 1100 DHI and post-vestibular testing questionnaires were mailed out, with postage included, to all patients who had vestibular tests due to dizziness within the last year and who volunteered to be a part of the study. We received 325 mailed responses. We also asked patients about associated symptoms and co-morbidities. Patients suffering from non-vestibular disorders associated with dizziness were excluded from the study. **Results:** A brief analysis demonstrates DHI scores are associated with caloric results (ANOVA: 0.011). When comparing anxiety and number of months dizziness has resolved to caloric tests, the results are not statistically significant (0.240, 0.829). Anxiety is a strong predictor of prolonged dizziness but not hearing loss, tinnitus, caloric results or rotational chair results (logistic regression). **Conclusion:** ENG caloric results are associated with DHI scores suggesting they can be used to predict disability related to dizziness. As well, these results help separate ENG results with common co-morbidities to optimize patient management and care. We'd like to use DHI and ENG scores to help predict patients at risk for poor outcomes related to dizziness.

09:45 p.m. - 09:50 p.m.

Assessing Perioperative Influences on Cochlear Implantation Hearing Preservation Surgery - J. Lui, Toronto, ON, K. de Champlain, Calgary, AB, Y. Ma, Stanford, CA, J. Siu, Toronto, ON, M. Gluth, Chicago, IL, J. Chen, Toronto, ON, M. Atlas, Perth, Australia, N. Blevins, P. Santa Maria, Stanford, CA

Learning Objectives

1. Assess the immense variability of hearing preservation definitions in cochlear implantation surgery. 2. Compare the influences of surgical techniques, electrode arrays, and steroid use on hearing preservation outcomes.

Abstract

Objective: To assess the effect of surgical techniques, electrode array design, and perioperative interventions on low frequency hearing preservation outcomes in cochlear implantation surgery. **Data sources:** In accordance with the PRISMA guidelines, a thorough literature search was performed from

January 1, 1995 to July 1, 2019 and included Ovid Medline, Embase, and PubMed. The search terms included were [(electric and acoustic hearing) OR (hybrid cochlear implant) OR (EAS cochlear implant*) or (partial deafness cochlear implant*) or (hearing preservation cochlear implant*)]. **Study selection:** Inclusion criteria were peer-reviewed publications evaluating hearing preservation as the primary goal of intervention. The search was restricted to human studies published in English. Studies were excluded if they were descriptive in nature or lacked hearing outcomes in accordance with pre-determined hearing preservation definitions. **Data extraction:** Data such as surgical technique, electrode array characteristics, and the use peri- and operative steroids were extracted. Raw audiometric data were utilized when possible. Data were excluded if ambiguity of any variables existed. **Data synthesis:** Multivariable ordinal logistic regression models were used for surgical technique, electrode array characteristics, and steroids. Statistical significance was defined as $p < 0.05$. **Conclusions:** There continues to be a clear lack of consistency in hearing preservation definitions in literature. In this updated meta-analysis, the following are associated with superior hearing preservation outcomes: posterior tympanotomy, lubrication with electrode insertion, electrode fixation with soft tissue or fibrin glue, and straight electrode arrays. Conflicting results exist for intra- and post-operative steroid administration depending on the definition of hearing preservation.

09:50 p.m. - 09:55 p.m. Discussion

Thursday October 29, 2020 @ 9:05 p.m.

Otology - Moderators Dr. Jane Lea & Dr. Paul Mick

09:05 p.m. - 09:10 p.m.

Distinct Temporal Bone Dissection Scales Demonstrate Equivalence in Distinguishing Trainee Performance - S. Singh, J. Pisa, B. Unger, D. Leitao, J. Jones, B. Blakley, J. Hochman, Winnipeg, MB

Learning Objectives

1. At this end of this presentation, attendees will appreciate the need for and the process in the genesis of a summative temporal bone grading schema.
2. At the end of this presentation, attendees will become familiar with several of the different temporal bone dissection scales that have supporting literature and gain an appreciation of possible strengths and concerns.

Abstract

Hypothesis: Different temporal bone dissection scales will independently distinguish resident surgeon performance by graduate year with each illustrating strong inter and intra rater reliability. **Background:** Increasing emphasis on patient safety creates the need for quality assessment of fundamental surgical skills. Existing summative temporal bone rating scales are laborious and contain fundamental inconsistencies and redundancies. Evaluator fatigue is a concern. Two new scales are compared to evaluate their construct validity prior to implementation in training. **Methods:** Resident surgeons attending a National Otolaryngology Conference completed a mastoidectomy with posterior tympanotomy on identical 3D printed temporal bone models. Four blinded Neurotologists evaluated the drilled specimens using the CanadaWest (CW) and Iowa Temporal Bone Assessment Tool (ITBAT), with scoring repeated after a six week interval. Results: Nineteen residents from nine postgraduate programs participated. Assessment was clustered into junior (Post Graduate Year or PGY 1, 2), intermediate (PGY 3) and senior resident (PGY 4, 5) cohorts. ANOVA analysis found significant differences between cohort performance ($p < 0.05$) for both scales in consideration of PGY and subjective account of temporal bone surgical experience. Cohen's Kappa found strong inter-rater reliability with scores of 0.790 (ITBAT) and 0.858 (CW) respectively. The ITBAT illustrated a marginal intra rater score of 0.289, compared to [0.711] for the CW scale. The CW had a significantly lower average time to completion of 42.7 (+/- 16.8) seconds compared to 105.6 (+/- 38.9) seconds ($p = 0.005$). **Conclusion:** Both the ITBAT and CW Scales demonstrate construct validity and consistency in performance and consideration should be given to judicious use in training.

09:10 p.m. - 09:15 p.m.

Does Combining Oral Steroids with Intra-tympanic Dexamethasone +/- Hyperbaric Oxygen Therapy (HBOT) Improve Hearing Recovery Rates in Sudden Sensorineural Hearing Patients? - D. Nunez, T. Joshua, P. Wijesinghe, Vancouver, BC

Learning Objectives

1. By the end of this session the audience will be able to describe the current literature on combination treatments for sudden sensorineural hearing loss (SSNHL).
2. By the end of this session the audience will be able to describe the reported hearing recovery rates obtained with oral steroids alone and with combination therapy in SSNHL patients.

Abstract

Objective: This study aims to determine the comparative effectiveness of oral steroids alone; and oral steroids combined with intra-tympanic dexamethasone and/or Hyperbaric Oxygen therapy (HBOT) on hearing recovery in patients with Sudden Sensorineural Hearing loss (SSNHL). **Methods:** A systematic review of primary research articles published between 2000 and 2018 identified by searching PubMed, Medline, Web of Sci and Embase databases was performed. Inclusion criteria were cases of audiometrically confirmed SSNHL that commenced treatment within 14 days of hearing loss onset. The primary outcome measure was hearing recovery defined as hearing improvement ≥ 15 dB post treatment. Studies with incomplete data were excluded. The quality of included studies was assessed using the National Institute of Health Assessment tool. The Chi-squared test was used for inter-group recovery rate analysis. **Results:** 24 of 223 identified articles meet the study inclusion criteria. The quality of evidence was good in 20, and poor in 4 articles. 90% of 1857 patients who received combined oral and IT steroids and 86% of 545 patients who underwent triple therapy including HBOT demonstrated hearing recovery compared to a 75% recovery rate in 776 patients who received oral steroids alone (Chi squared, $p < 0.05$). **Conclusions:** SSNHL patients undergoing combination treatment demonstrated a higher hearing recovery rate than patients treated with oral steroids alone.

09:15 p.m. - 09:20 p.m.

Hearing Outcomes and the European Academy of Otology & Neurotology / Japanese Otology Society Staging (EAONO/JOS) of Middle Ear Cholesteatoma - C. Leonard, A. James, Toronto, ON

Learning Objective

1. EAONO/JOS standardises the classification of cholesteatoma. 2. The International Otology Outcomes Group (IOOG) have validated EAONO/JOS for rates of recidivism but not hearing outcomes. 3. Higher hearing thresholds are seen post operatively with increasing stages. 4. Minimum data sets and EAONO/JOS should be recorded to facilitate large-scale collaboration.

Abstract

Introduction The EAONO/JOS classifies cholesteatoma by severity and demonstrates increased recidivism in more advanced disease. Hearing outcomes have not been assessed against EAONO/JOS stage. **Methods** Cohort analysis of prospectively acquired data from children (≤ 18 years) undergoing surgery for cholesteatoma for Stage 1 ($n = 51$), Stage 2 ($n = 239$), Stage 3 ($n = 40$) or Stage 4 ($n = 2$) disease between 2003 and 2019. Four tone average air conduction hearing thresholds (dB HL) and proportion of ears with normal hearing thresholds (< 30 dB) pre- and post-operatively were compared. **Results** Pre-operatively hearing threshold differentiated between Stage 1 (30 dB HL) and Stage 2 (37.5 dB HL) ears (Mann Whitney 7.8 dB $p = 0.01$). Stage 3 ears had worse median hearing thresholds (46.5 dB HL) but not significantly. Post-operatively Stage 1 (27.5 dB HL) and Stage 2 (35 dB HL) are differentiated ($p = 0.002$), as are Stage 2 from Stage 3 (39 dB) ($p = 0.04$). Stage 1 ears with abnormal hearing pre-operatively are more likely to have normal hearing post-operatively than Stage 2 (Chi2 $x = 6.16$ $p = 0.01$). **Conclusion** The EAONO/JOS prognosticates for hearing threshold outcomes. Large-scale collaboration is required to assess the ability to prognosticate rates of normal hearing post-operatively in more advanced disease.

09:20 p.m. - 09:25 p.m.

Discussion

09:25 p.m. - 09:30 p.m.

Micro-CT of the Human Ossicular Chain: Statistical Shape Modelling and Implications for Otologic Surgery - M. Bartling, A. Rohami, S. Agrawal, H. Ladak, London, ON

Abstract

Despite being shown to be highly variable in shape, there are very few morphological studies of the ossicles. The objective of this study was to use a large sample of cadaveric ossicles to create a set of three-dimensional models and study their statistical variance. Thirty-three cadaveric temporal bone samples were scanned using micro-CT and segmented. Statistical shape models (SSMs) were then made for each ossicle to demonstrate the divergence of morphological features. Results revealed that ossicles were most likely to vary in overall size, but that more specific feature variability was found at the manubrium of the malleus, the long processes and lenticular process of the incus, and the crura and footplate of the stapes. By analyzing samples as whole ossicular chains, it was revealed that when fixed at the malleus, changes along the chain resulted in a wide variety of final stapes positions. This is the first known study to create high-quality, three-dimensional SSMs of the human ossicles. This information can be used to guide otological surgical training and planning, inform ossicular prosthesis development, and assist with other ossicular studies and applications by improving automated segmentation algorithms. All models have been made publicly available.

09:30 p.m. - 09:35 p.m.

Incidence and Predictors of Requiring Hearing Assistive Devices among Childhood Cancer Survivors: A Population-Based Study - J. Beyea, C. Lau, B. Cooke, S. Hall, Kingston, ON, S. Gupta, Toronto, ON

Learning Objectives

1. After this presentation, participants will identify the oncological treatment-based risk factors for requiring hearing assistive devices. 2. After this presentation, participants will identify the incidence of hearing assistive devices in childhood cancer survivors.

Abstract

Background: Hearing loss is a late effect among childhood cancer survivors, but guidelines note insufficient evidence to quantify natural history or risk associated with specific exposures. We examined the long-term incidence and predictors of hearing loss requiring hearing amplification devices (HAD) using population-based healthcare data. **Methods:** In Ontario, Canada, HAD are subsidized by the Assistive Devices Program (ADP). Ontario children age <18 years at cancer diagnosis (1987-2016) were identified using a pediatric cancer registry and linked to ADP claims. Patient, disease, and treatment predictors of HAD were examined. **Results:** We identified 11,842 cases and 59,210 matched controls. Cases were at higher risk of HAD [hazard ratio (HR) 12.8, 95% confidence interval (95CI) 9.8-16.7; $p < 0.001$]. The cumulative incidence of HAD among survivors was 2.1% (95CI 1.7-2.5%) at 20-years and 6.4% (95CI 2.8-12.1%) at 30-years. 30-year incidence was highest in survivors of neuroblastoma (10.7%, 95CI 3.8-21.7%) and hepatoblastoma (16.2%, 95CI 8.6-26.0%). Predictors of HAD in multivariable analyses included age 0-4 years at diagnosis (vs. 5-9 years, HR 2.2, 95CI 1.4-3.3; $p < 0.001$), cumulative Cisplatin exposure $> 1-200\text{mg/m}^2$ (vs. no cisplatin, HR 3.1, 95CI 1.8-5.5, $p < 0.0001$), and cumulative radiation dose to ear $> 32\text{Gy}$ (vs. no rads, HR 2.4, 95CI 1.6-3.7, $p < 0.0001$). Lower Cisplatin /radiation doses, and Carboplatin, were not associated with HAD. **Conclusions:** Childhood cancer survivors are at elevated risk of HAD, which continues to rise over time. Thresholds of cisplatin and radiation exposure exist above which risk substantially increases. Audiological monitoring, early hearing rehabilitation, and trials of otoprotective agents are warranted in high-risk populations.

09:35 p.m. - 09:40 p.m.

Cochlear Implantation in Asymmetric Hearing Loss: Predicting Outcomes with Binaural Baseline HINT Performance - J. Lui, Toronto, ON, D. Low, Singapore, M. Kuroiwa Rivero, D. Shipp, T. Le, J. Chen, V. Lin, Toronto, ON

Learning Objectives

1. Appraise the role of expanding cochlear implantation candidacy beyond current indications in Canada. 2. Identify key predictors of performance outcomes using baseline audiometric testing.

Abstract

Objective: to quantify hearing outcomes change and identify potential predictors in post-lingually deafened adults who underwent cochlear implantation (CI) despite not meeting traditional candidacy criteria. Study design: retrospective cohort investigation. **Setting:** tertiary referral center **Patients:** post-lingually deafened patients that underwent cochlear implantation from 2014 to 2016 with a pre-implantation Hearing in Noise Test (HINT) score of greater than 60% without benefit from hearing aids were included. Patients with single-sided deafness, cognitive deficits, or retrocochlear pathology were excluded. **Intervention:** cochlear implantation. **Main outcome measure(s):** Postoperative CNC, HINT and AzBio (in quiet and +5dB SNR). Quality of life measurements included the Hearing Handicap Inventory and the Health Utilities Index Mark 3. **Results:** 103 patients, averaging 62.2 years of age, meeting inclusion criteria experienced improvements in binaural HINT-Q scores and AzBio-Q scores (80.0 \pm 11.3% and 92.2 \pm 11.1% and 67.8 \pm 19.4% to 86.1 \pm 12.2%, respectively). When stratifying patients via preoperative bilateral HINT-Q scoring, patients with lower baseline scores derive the largest improvement in binaural quiet conditions. However, higher baseline scores were predictive of stronger postoperative binaural performance. **Conclusion:** Expanding indications to include binaural HINT-Q beyond 60% translates to meaningful benefits with improved open set speech scoring translating in quality of life improvement.

Discussion

09:40 p.m. - 09:45 p.m.