RESULTS: Positional differences between negative and positive pressure stages (N-P) of Group 2 were significantly different among group 1, 2, 3 and normal group (p=0.004, one-way ANOVA with multiple comparison). To diagnose the ossicular fixation with a cut-off value of 2% or less in terms of the movement of umbo, the sensitivity, specificity and diagnostic accuracy of VPO were 77.78%, 78.57% and 78.38%, respectively. Those of TBCT were 55.56%, 94.74% and 82.14%, respectively.

CONCLUSIONS: These results suggest that the quantitative analysis of VPO may be a useful tool for the visual diagnosis of ossicular fixation comparable to TBCT.

Vitamin intake and risk of hearing loss in men
Josef Shargorodsky, MD (presenter);
Gary Curhan, MD; Sharon Curhan, MD

OBJECTIVES: Hearing loss (HL) is the most common sensory disorder in the U.S., affecting over 36 million people. Free radical formation in the cochlea has been implicated in several causes of sensorineural hearing loss, including presbycusis and noise induced. It has been proposed that higher intake of antioxidant vitamins could reduce the risk of hearing loss.

METHODS: We prospectively evaluated the association between intake of vitamins C, E, and beta carotene (from foods and supplements) and incidence of hearing loss. Participants were 26,273 men in the Health Professionals Follow-up Study, aged 40-75 years at baseline in 1986. Study participants completed questionnaires about lifestyle and medical history every two years and diet every four years. Information on self-reported professionally diagnosed hearing loss and year of diagnosis were obtained from the 2004 questionnaire and cases were defined as hearing loss diagnosed between 1986 and 2004. Cox proportional hazards multivariate regression was used to adjust for potential confounding factors.

RESULTS: There were 3,559 cases of hearing loss identified. Total intake of vitamin C, vitamin E, or beta carotene was not significantly associated with HL risk. Multivariate-adjusted hazard ratios of hearing loss comparing the highest to lowest quintile of intake were 1.09 (95% CI 0.95-1.25) for vitamin C, 1.06 (95% CI 0.92-1.22) for vitamin E, and 0.99 (95% CI 0.87-1.11) for beta carotene.

CONCLUSIONS: Higher intake of vitamin C, E, or beta carotene does not reduce the risk of hearing loss in adult males.

Pediatric Otolaryngology

A novel hemostatic dressing for pediatric tonsillectomy
Giacomo Basadonna, MD (presenter);
Maria Chavez Delgado, MD; Paulino Gamboa, MD

OBJECTIVES: 1) To study the efficacy of a novel kaolin-based hemostatic dressing in pediatric patients undergoing adenotonsillectomy. 2) To assess the safety of the novel dressing for ENT procedures.

METHODS: A total of 108 patients (age 6.8 + 3.5 years, of which 53.7% were female) underwent tonsillectomy and adeno-oidectomy. A novel hemostatic dressing consisting of rayon surgical gauze impregnated with kaolin was tested to assess its efficiency and safety. Time to complete hemostasis, operative time, intraoperative blood loss were measured together with the incidence of peritonsillar edema, postoperative pain, use of analgesic therapy and time to first drink (h). This is a preliminary report.

RESULTS: Average time to bleeding control was 115+61 seconds and complete hemostasis was achieved within 5 minutes from application in 83.3% (95% CI, 74-89) of cases. The average time of surgery and blood loss were 18.9+3.4 minutes and 35.1+11.1 mL respectively. A greater proportion of children (79.6%, 95% CI,70-86) had slight or absent throat pain 18 h after surgery. Patients received an average of 1.7+0.6 doses of analgesic. The average time to first drink was 3.1+1.5 hours. Minimal peritonsillectomy inflammation was found in 69.4% of children (95 CI, 59-77).

CONCLUSIONS: Preliminary findings show that the kaolin-coated surgical dressing is effective and safe in managing surgical bleeding following adenotonsillectomy. In addition to rapid bleeding control, the dressing causes minimal inflammation and pain, and allows patients to quickly return to normal activities. This novel dressing is a promising tool for ENT surgical hemostasis.

Adaptation of the surgical procedure for cochlear implants in infants and toddlers
Joachim M Mueller (presenter)

OBJECTIVES: Be able to understand the difference in surgical procedures to implant adults and very young children.

METHODS: Analysis of 156 cochlear implantations in children less than age 2, including 106 children age 18 month or younger, 53 children 12 months or younger and 22 children six months or younger at implantation.

RESULTS: Because skull thickness is reduced, drilling a recessed bed is not always feasible. Adequate fixation is necessary. In addition, a double-layer flap fixes the implant stable over time, aligns the shape of the implant to the skull and protects against trauma. The facial recess is smaller in young children, requiring additional perseverance for electrode insertion. A widely opened facial recess and an exposed fallopian canal are helpful to get appropriate access to the cochlea, but also remains challenging for the surgeon due to the small dimensions.

CONCLUSIONS: Taking into consideration the child’s individual situation and circumstances, pediatric cochlear implantation is safe at a very young age.