All cases presenting to the author have undergone surgical treatment and patients with middle ear disease and treated surgically within 2 months of presentation all showed some recovery in facial nerve function. In those with apical disease the palsy was often present for many years and facial nerve function did not improve but nor did it deteriorate post-operatively in these more long-standing cases.

Facial nerve palsy associated with cholesteatoma should be treated surgically as early as possible but recovery can still be anticipated, even if treatment is delayed for up to 2 months.

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Initial clinical experience with the Nucleus CI532 Cochlear Implant Electrode

Presenting Author: **Robert Briggs**

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Learning Objectives:

Objective: To evaluate the efficacy of the Slim Modiolar (CI532) array in delivering consistent scala tympani and perimodiolar placement of the electrode contacts in cochlear implant recipients.

Methods: The Nucleus CI532 device incorporates a new precurved, perimodiolar electrode array (EA32) with 22 contacts and a cross-sectional area of approximately 40% of that of the Contour Advance "CA" array with the same electrode length. The EA32 does not have a lumen and stylet like the current CA; instead it has a thin electrode which is introduced into the cochlea through a 0.7 mm diameter straightening sheath.

As part of a multicentre international clinical trial, 10 patients have received the CI532 implant at the Melbourne Cochlear Implant Clinic. Outcome measures have included intra-operative fluoroscopy and Neural Response Telemetry, Post operative Cone Beam CT and speech perception testing.

Results: Electrode placement was successful in all 10 recipients with confirmed Scala Tympani position and low wrapping factor indicating good perimodiolar proximity. Hearing performance at 6 months appears promising.

Conclusion: Initial clinical experience with the CI532 electrode has demonstrated successful placement in 10 patients without complication and excellent perimodiolar position.

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Otitis Media in children with cochlear implants - a long term prospective study

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Learning objectives: to determine the incidence of chronic otitis media in pediatric implantees and to define influencing factors.

Introduction: COM is considered a late sequela of both recurrent AOM and also of ventilating tubes. In children with a cochlear implant, the risks of middle ear infection and its potential spread along the electrode array into the cochlea and central nervous system are relatively high, mandating an aggressive management including insertion of ventilating tubes. Although the rate of AOM episodes diminishes after cochlear implantation, it remains high in otitis media (OM) prone children, thus might lead to repeated ventilating tube (VT) insertions. Information regarding the incidence of COM in children after cochlear implantation is scarce. The aim of the study is to determine the incidence of COM in pediatric implantees and to define influencing factors.

Methods: A retrospective study including 200 pediatric implantees. Mean age at CI was 32.58 ± 17.83 months and mean post-operative follow-up was 72.41 ± 35.27 months. Management was based on a structured AOM control protocol.

Results: 126 children (63%) were classified as OM prone and 74 (27%) as non-OM prone. 38 children (19%) underwent ≥ 2 VT insertions. Chronic OM developed in 15 children (7.5%). Seven children had a tympanic membrane perforation, 7 had adhesive middle ear disease and one more had cholesteatoma. Myringosclerosis appeared in 22 children (11%).

Discussion: Children after cochlear implantation continue to suffer from sequela of recurrent episodes of AOM. Significantly more myringosclerosis is found in OM-prone children who underwent repeated VT insertions. These children are also at increased risk for development of COM. OM-prone implantees should be followed carefully and continuously for early diagnosis and surgical intervention in cases of COM.

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Predictive factor for residual hearing preservation after conventional cochlear implantation