New diagnostic method in otology (N645)

**Learning Objectives**: 1. To review limitations in current imaging 2. To review the principles of high frequency ultrasound 3. To review the principles of optical coherence imaging 4. To illustrate uses of these technologies in otology.

**Presenting Author**: Manohar Bance

Manohar Bance¹, Rob Adamson¹, Jeremy Brown¹, Tom Landry¹, Dan MacDougall¹, Josh Farrell²

¹Dalhousie University, ²Dalhousie University

Since 2004 we have been using glass ionomer cement during ossiculoplasty. In the beginning we were using cement only for incus defects between incus and stapes but later on cements are used in many other situations as well.

Recently we compared ossiculoplasty results in different situations: 1-incus to stapes 2-malleus to stapes 3--incudoplasty + stapedotomy 4-malleus to incus

In this presentation short video clips of each situation will be provided together with audiological outcome.

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Hearing reconstruction in chronic ears (R646)

**Learning Objectives**: Using cements for ossiculoplasty

**Presenting Author**: Levent Sennaroglu

Levent Sennaroglu

Hacettepe University School of Medicine

**ID**: 646.1

**Using cements for ossiculoplasty**

**Methods**: From 1997 to 2015, 6 males and 4 females, age 12 to 73 (mean, 42.3), years were treated for acquired cholesteatoma with labyrinthine destruction, skull base erosion, or intracranial extension.

**Study Design**: A retrospective case series at a tertiary referral center.

**Results**: At surgical exploration, 2 patients had cholesteatoma with destruction of the cochlea, 4 had skull base invasion and 4 had intracranial involvement. Five patients required temporal bone obliteration, 2 had radical cavities with exteriorization of the petrous apex, and 3 required modified radical cavities. One patient with VII palsy recovered to HB grade III. One patient with labyrinthine destruction maintained residual hearing post op.

**Conclusions**: Acquired cholesteatoma with labyrinthine destruction, skull base extension, and intracranial involvement can have surprisingly subtle presentations. Balancing disease exteriorization with preserving labyrinthine function requires prudent radiological workup and surgical planning. Disease eradication is often not possible. Long-term clinical follow-up with periodic imaging and aggressive debridement is often necessary for disease control.

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Hearing reconstruction in chronic ears (R646)

**Learning Objectives**: Hearing reconstruction in chronic ears

**ID**: 646.2

**Ten cases of cholesteatoma with labyrinthine destruction, skull base involvement and intracranial extension: management and long-term follow-up**

**Presenting Author**: Douglas Backous

Christina Cobb, Douglas Backous

Swedish Neuroscience Institute

**Methods**: At surgical exploration, 2 patients had cholesteatoma with destruction of the cochlea, 4 had skull base invasion and 4 had intracranial involvement. Five patients required temporal bone obliteration, 2 had radical cavities with exteriorization of the petrous apex, and 3 required modified radical cavities. One patient with VII palsy recovered to HB grade III. One patient with labyrinthine destruction maintained residual hearing post op.

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