

myringoplasties between 2002 and 2012 to study revision surgery and the complications reported in the register.

The reported complications 6–12 months after surgery are taste disturbances of corda tympani, new or persistent tinnitus and postoperative infections. National results as well as detailed results from 2 ENT clinics in Sweden, County hospitals have been analyzed to compare the frequency of complications.

A review of the patient records were made to further analyze the patients report of postoperative infections from the 2 county hospitals. To further analyze if taste disturbances and tinnitus is still persistent after a longer period after surgery a survey was sent home to all the reporter cases in the nation.

In summary patients have an increased risk for reoperation after revision surgery.

Men has a higher risk for tinnitus compared to women, an women have a greater risk for taste disturbances compared to men. Postoperative infections seem to be over reported. Tinnitus seems to be persistent long time after surgery.

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Comparisons of Auditory Performance and Speech Intelligibility after Cochlear Implant Reimplantation in Mandarin-Speaking Users

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Learning Objectives: This study documented the incidence of complications and revisions following CI and analyze causes and management outcomes in order to understand what could be learned from the experiences of revision CI surgery.

Introduction: Complications of Cochlear implantation (CI) sometimes lead to revision surgeries or even reimplantation. However, the auditory performance and speech intelligibility subsequent to reimplantation are not often discussed, especially in Mandarin-speaking users. This study review our experience with CI surgeries in Mandarin speaking users over a 16-year period, emphasizing causes, auditory performance, and speech intelligibility after reimplantation.

Methods: 589 patients who underwent CI in our medical center between 1999 and 2014 were reviewed retrospectively. Data related to demographics, etiologies, implant-related information, complications, and hearing and speech performance were collected.

Results: 22 (3.74%) cases were found to have major complications. Infection (n = 12) and hard failure of the device (n = 8) were the most common major complications. The incidence of minor complications was 11.04% (n = 65). In total, 18 (3.06%) patients underwent revision surgeries due to infection

(n = 9), device failure (n = 8), and severe hematoma (n = 1). Among them, 13 were reimplanted in our hospital. The mean scores of the Categorical Auditory Performance (CAP) and the Speech Intelligibility Rating (SIR) obtained before and after reimplantation were 5.5 versus 5.8 and 3.7 versus 4.3, respectively. The SIR score after reimplantation was significantly better than pre-operation.

Conclusion: The Mandarin-speaking patients who received reimplantation had restored auditory performance and speech intelligibility after surgery. Device soft failure was rare in our series, calling special attention to Mandarin speaking CI users requiring revision of their implants due to undesirable symptoms or decreasing performance of uncertain cause.

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MicroRNA-21 Promotes the Proliferation and Invasion of Cholesteatoma Keratinocytes

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Learning Objectives: Cholesteatomas is characterized by a more rapid growth and extensive bone destruction in the middle ear and mastoid cavities. MicroRNAs (miRNAs) are posttranscriptional regulators of gene expression. The goal of this study was to investigate the posttranscriptional regulatory effects controlling proliferation, apoptosis and invasion in cholesteatoma keratinocytes. Specifically, the potential role of microRNA-21(miR-21) was focused on in this study.

Methods: Cholesteatoma tissues, taking from the patients at the time of surgery, were processed for RNA and cell culture. The cholesteatoma keratinocytes were transfected with miR-21 mimics, miR-21 inhibitor or negative control miRNA, and then growth curves were drawn. Real-time reverse-transcription polymerase chain reaction was used to assess the expression levels of miR-21. EdU incorporation assay and TUNEL staining were used to assess the proliferation and apoptosis of cholesteatoma keratinocytes, respectively. The invasive abilities of cholesteatoma keratinocytes were examined using 6-well Transwell plates.

Results: MicroRNA-21 showed an up-regulation respectively cholesteatoma keratinocytes transfected miR-21 mimics as compared with cells transfected miR-21 inhibitor or control miRNA. The number of proliferative EdU-positive(EdU+) cells increased in cholesteatoma keratinocytes transfected miR-21 mimics, as compared with cells transfected miR-21 inhibitor or control miRNA. The number of TUNEL-positive cells was increased in cholesteatoma keratinocytes transfected