Revision stapedectomy

THESIS

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بسم الله الرحمن الرحيم

"قالوا سبحانك لا علم لنا إلا

ماعلمتنا إنك أنت العليم

الحكيم"

صدق الله العظيم

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ABSTRACT

the intra operative findings that caused the post operative conductive deafness in revision cases, as replacement of prosthesis, cutting of adhesions, a silastic sheet could be placed between the lenticular process and the promontory as well as the loop could be replaced on the stump of the necrosed incus and pushed upwards and a segment of silasting tubing to be threaded on the stump and loop was pushed upwards.

KEY WORDS

Revision

stapedectomy

CONTENTS

LIST OF ABBREVIATIONS

ABG:	**air bone gap**
CHL:	**Conductive hearing loss.**
Co2:	**Carbon dioxide**
CT	**Computerized tomography**
dB	**decibel**
KHz	**Kilohertz**
laser	**Light amplification by stimulated emission of radiation**
ml	**milliliter**
mm	**millimeter**
OR	**Operating room**
PTA	**Pure tone audiogram**
SNHL:	**sensorineural hearing loss**

LIST OF FIGURES

Introduction

Half a century ago, **Shea (1956)** described the microsurgical technique of stapedectomy with the insertion into the oval window of a stapes replacement prosthesis made of Teflon. Thanks to this operation it became possible in most cases to correct the otosclerotic conductive hearing loss, which represents a serious social and professional disability for the affected patients. Since then, otologists throughout the world have used the stapedectomy technique with decisive success.

Over the years, many of these otological microsurgeons have continued to make further improvements to the surgical technique. The retroauricular approach was abandoned in favor of the less invasive end aural approach; today many otological surgeons make almost exclusive use of the transcanal approach through an aural speculum and the operation is often carried out under local anesthesia. Total removal of the footplate was abandoned in favor of the small-caliber footplate perforation, a so-called stapedotomy, in which piston prosthesis with a diameter of 0.3-0.8 mm is used (**Hausler, 2004).**

Stapes prostheses made of biocompatible materials such as Teflon, platinum, gold and titanium are commercially available, sometimes with ingenious mechanisms for their fixation to the incus. The microsurgical equipment has been expanded and improved. New technique tools, such as particularly fine, low frequency micro drills that spare the inner ear, have

been developed. Various laser systems, which allow precise, atraumatic work on the stapes, have been tested and successfully used. The illuminating power, optical quality and user-friendliness of the operating microscope have been improved. All of these advances have made stapedectomy into a textbook example of minimally invasive high-success surgery today **(Hausler et al., 1999).**

Every time a new technique has been introduced, the new procedure has probably represented a step forward, but observation of a number of treated patients over several years has shown that failures resulting in poor hearing do occur.Patients, who do not obtain optimal hearing improvement following an operation for otosclerosis and patients, who later develop conductive hearing loss will often be offered a revision procedure. In principle, stapedectomy is a once only operation with a definitive hearing gain, which should last for a lifetime. This is indeed often the case. Regardless of the surgical technique used, however, the expected hearing gain sometimes doesn’t occur, or after an initially favorable result hearing loss recurs for various reasons. In these cases, secondary hearing improvement can be brought about through stapes revision operation **(Dieler et al., 1997).**

REVIEW OF LITERATURE

AIM OF THE WORK

This present work aims at studying various factors that cause conductive deafness after stapedectomy and their proper management.