Tympanoplasty, Mastoidectomy, and Stapes Surgery

Ugo Fisch

in collaboration with John May

140 illustrations by Ugo Fisch and Ivan Glitsch
36 tables
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Every surgical move should be, as in a chess-game, the result of a logical plan. Surgical disasters are usually the consequence of ill-conceived and therefore hazardous actions. Only the constant use of reasonable and logic principles based on knowledge and experience will allow the surgeon to react adequately, even when facing the most unexpected situation.

The aim of this book is to convey a logical approach to the most common problems in otologic surgery. To realize this purpose we have not reviewed all available techniques of tympanoplasty, mastoidectomy, and stapes surgery, but only considered those that have proven of value during 30 years of otologic practice and teaching. Particular care has been taken to explain the reasons determining the choice of a particular technique. Revision surgery, which is the natural harvest of prolonged activity in the otologic field, offered sufficient opportunity to assess the validity of the surgical principles illustrated in this book. Adequate exposure remains the main prerequisite for successful surgery.

Most failures of myringoplasty are the consequence of inadequate canalplasty. Wet open cavities are usually the result of insufficient exteriorization. Failures in stapes surgery often derive from limited exposure through a narrow external auditory canal. To achieve adequate exposure, one must be prepared to enlarge a microsurgical keyhole rather than to use inadequately small keys.

The joint preventive efforts of pediatricians and ENT specialists have reduced, in developed countries, the number of patients in need of otologic surgery. The corresponding dilution of surgical expertise has increased the need for simple and reliable otologic techniques. We prefer the endaural approach to the transcanal use of the ear speculum because it provides a larger exposure and allows the use of both hands for ossicular reconstruction and stapes surgery. In view of the reduced opportunities for surgical experience, residents and practicing otologists should also learn to accept their limitations. One should be prepared to refer rare and complex pathologies to those with greater experience and to step out in due time from too difficult surgical adventures to avoid disaster.

The danger of a surgical manual is that it may give a false impression of simplicity and ease. This is why we have attached great importance to the meticulous description of each surgical step. The illustrations in this manual were made by the author and are intended to convey essential surgical features rather than to be a realistic reproduction of a given anatomical situation.

Of course, the manual skills required to perform safe surgery can only be acquired by temporal bone dissection in the laboratory and by carefully supervised surgery in the operating room. Only in this way can one learn to perform an adequate canalplasty reducing the overhang of the anterior canal wall without breaking into the temporomandibular joint, to safely skeletonize the semicircular canals and the tympanomastoid segments of the fallopian canal for the correct exenteration and exteriorization of the retro-
and supralabyrinthine pneumatic spaces, and to perform the steps of stapes surgery with sufficient delicacy of touch. We have tried to make the reader aware of these difficulties throughout the book, particularly in the "rules and hints" sections following each chapter.

A book like this is the result of the effort of many people. I am very greatful to my wife, Monica, for having gracefully accepted that many weekends and vacations were absorbed by the preparation of this book. Sincere thanks go to Mrs. Ch. Hofmann for the invaluable help in typing the manuscript, to Mrs. B. Schmugge for the precious computer instructions, and to Mrs. A. Rapold for trying the impossible and giving me time to write this book within my endless working schedule. I also have to acknowledge the invaluable and dedicated help of Mrs. R. Brandstatter and Mrs. E. Haukenfrers in the operating room, and in compiling the list of instruments cited in this book. My special gratitude goes to Mr. I. Glitsch, who has agreed to give his unique professional touch to the illustrations in spite of his well-deserved retirement and to Dr. John May who, after spending a year of fellowship with us, has taken the trouble to revise the manuscript and to offer many suggestions for its improvement. My thanks also go to Dr. R. Zane, Houston, for his help in correcting the galley proofs. Finally I have to acknowledge the great help of Mr. Menge, Mr. Schafer, and Ms. Solaro of Thieme, who have used all their expertise to put this book in the proper printed shape.

It is my hope that this manual will help residents find a reliable way through the complex and fascinating world of otologic surgery and be of value to the ENT practitioners in solving some of their challenging daily problems.

Zurich, Spring 1994

U. Fisch
Chapter 1

Tympanoplasty

General Considerations ........................................... 2
1. Definitions ..................................................... 2
2. Aims of Tympanoplasty ....................................... 2
3. Preoperative Care ............................................. 2
  3.1 Preoperative Investigations .......................... 2
  3.2 Rules for Preoperative Treatment ............... 3
  3.3 Antibiotic Treatment .................................. 3
  3.4 Preoperative Preparation .............................. 3
4. Postoperative Care ........................................... 4

4.1 Myringoplasty, Tympanoplasty ....................... 4
4.2 Open Cavity (Radical Mastoido-Epitympanectomy with Tympanoplasty) ......................... 4
5. Anesthesia ..................................................... 4
  5.1 Local Anesthesia ....................................... 4
  5.2 General Anesthesia .................................. 5
6. Facial Nerve Monitoring .................................. 6
7. Instrumentation .............................................. 6
8. Rules and Hints .............................................. 7

Specific Surgical Techniques ................................. 15
1. Transcanal Approach .................................. 15
  1.1 Surgical Technique .................................. 15
  1.2 Surgical Highlights .................................. 15
  1.3 Surgical Steps ....................................... 16
2. Endaural Approach ....................................... 17
  2.1 Surgical Technique .................................. 17
  2.2 Surgical Highlights .................................. 17
  2.3 Surgical Steps ....................................... 18
3. Retroauricular Approach ................................. 19
  3.1 Surgical Technique .................................. 19
  3.2 Surgical Highlights .................................. 19
  3.3 Surgical Steps ....................................... 19

Chapter 2

Myringoplasty

General Considerations ........................................... 10
1. Definitions ..................................................... 10
2. Surgical Approaches ...................................... 10
  2.1 Transcanal Approach .................................. 10
  2.2 Endaural Approach ..................................... 10
  2.3 Retroauricular Approach ................................ 12
3. Selection of Surgical Approach ...................... 13
4. Grafting Technique ......................................... 13
  4.1 Anterior Underlay ....................................... 14
  4.2 Overlay .................................................. 14

Specific Surgical Techniques ................................. 15
1. Transcanal Approach .................................. 15
  1.1 Surgical Technique .................................. 15
  1.2 Surgical Highlights .................................. 15
  1.3 Surgical Steps ....................................... 16
2. Endaural Approach ....................................... 17
  2.1 Surgical Technique .................................. 17
  2.2 Surgical Highlights .................................. 17
  2.3 Surgical Steps ....................................... 18
3. Retroauricular Approach ................................. 19
  3.1 Surgical Technique .................................. 19
  3.2 Surgical Highlights .................................. 19
  3.3 Surgical Steps ....................................... 19
Chapter 5

Mastoidectomy

General Considerations 146
1. Definitions 146
2. Cholesteatoma 146
3. Classification of Cholesteatoma 146
4. Surgical Treatment of Acquired Cholesteatoma 151

Specific Surgical Techniques for Cholesteatoma Removal 154
1. Closed Mastoido-Epitympanectomy with Tympanoplasty (closed MET) 154
2. Open Mastoido-Epitympanectomy with Tympanoplasty (open MET) 164
3. Tympanoplasty in Open Mastoido-Epitympanectomy 180

Chapter 6

Special Applications of Mastoidectomy 199
1. Reconstruction of Open Cavity 200
1.1 General Concepts 200
1.2 Surgical Technique 200
2. Cochlear Implant 201

3. Results 208
3.1 Reconstruction of Open Cavity 208
3.2 Cochlear Implant 208
4. Rules and Hints 208
Chapter 7

Stapes Surgery

General Considerations. ........................... 212
1. Stapedotomy versus Stapedectomy .................. 212

Specific Surgical Techniques. .................. 214
1. Stapedotomy .................................. 214
2. Stapedectomy .................................. 228
2.1 Construction of Wire Connective-Tissue Prosthesis .......................... 230

Chapter 8

Special Applications of Stapes Surgery ............... 235

1. Incus Replacement with Stapedotomy (IRS) for Malleus and/or Incus Fixation in Otosclerosis ........................................ 236
2. Obliterative Otosclerosis .......................... 240
3. Floating Footplate ................................ 242
4. Narrow Oval Window Niche ...................... 243
5. Short Incus ...................................... 245
6. Anomalous Facial Nerve ......................... 246
6.1 Vestibulotomy .................................. 246
6.2 Promontorial Cochleostomy .................... 248
7. The Missing Stapes ............................... 248
7.1 Identifiable Oval Window Niche .................. 248
7.2 Unidentifiable Oval Window Niche ............... 250
8. Revision Stapedectomy or Stapedotomy .......... 253
8.1 Reobliteration of Oval Window ................. 253
8.2 Migration of Prosthesis Shaft .................... 253
8.3 Detachement of Prosthesis Loop ................ 255
8.4 Overly Long Prosthesis ......................... 255
8.5 Previously Undetected Malleus and/or Incus Fixation ..................... 256
8.6 Perilymph Fistula .............................. 257
9. Stapedotomy in Fenestrated Ears .................. 258
10. Stapes Surgery in Tympanosclerosis ............... 260
11. Results of Stapes Surgery ....................... 263
11.1 Stapedectomy versus 0.6-mm Stapedotomy ........ 263
11.2 Stapedotomy (0.4 mm) ....................... 265
11.3 Sensorineural Deafness Following Stapes Surgery ...................... 267
11.4 Revision Surgery ............................. 267
11.5 Results of Stapedectomy in the Presence of Unmeasurable Preoperative Hearing .................. 269
11.6 Results of Stapes Fixation without Otosclerosis ................. 269
12. Rules and Hints ................................. 270

Appendix: Instrumentation, Manufacturers, and Suppliers of Microsurgical Equipment .......................................................... 273

Index .................................................. 279
At surgery, 201 (61.3%) patients had an intact ossicular chain, 44 (13.4%) had a complete ossicular discontinuity, and 83 (25.3%) exhibited an IOD. The best cutoff level was calculated as 10 dB. The HICHL test to diagnose IOD had a sensitivity of 83% and a specificity of 92% with a post-test probability of 78% and a likelihood ratio of 10.2. Objectives Temporalis fascia has become the most widely used graft for tympanoplasty, as it is strong, durable, and easy to procure and handle. However, the type of temporalis fascia graft to use (i.e. dry or wet) remains controversial. The present review aimed to evaluate the success rates of dry and wet temporalis fascia grafts in type I underlay tympanoplasty. Tympanoplasty, Mastoidectomy, and Stapes Surgery. New York: Thieme Medical Pub., 1994. Roland, P. S. Tymanoplasty: Repair of the Tympanic Membrane. Continuing Education Program (American Academy of Otolaryngology-Head and Neck Surgery Foundation). Alexandria, VA: American Academy of Otolaryngology, 1994. Tos, M. Manual of Middle Ear Surgery: Approaches, Myringoplasty, Ossiculoplasty and Tympanoplasty. New York: Thieme Medical Pub., 1993. periodicals.