Stapes Surgery for the Generalist

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The overall experience with stapes surgery has declined, both within residency training programs, as well as, in clinical practice. Does this change in the environment suggest that subspecialists rather than generalists manage patients with otosclerosis?

A decreasing availability of patients with clinical otosclerosis has encouraged trainees and practitioners to adopt strategies that will enable the maintenance of quality care to these patients.
Well trained generalists should be prepared to perform stapes surgery. Lack of experience or infrequent exposure to disease suggests that optimal care can be achieved by referring the patient to an experienced otologic surgeon.

Introduction

The large backlog of cases, initially seen and treated in the 1960s, has long ago been addressed. Paralleling the decline in available clinical material has been the rise in the number of subspecialty trained otologists.
In an environment of medicolegal tension, the ill-prepared trainee and the occasional stapes surgeon are both potentially jeopardizing the health and safety of their patients, and court an untoward outcome, which may result in litigation.

Training

Numerous studies have examined the role of training programs in teaching stapes surgery.

The assertion that residents can safely perform stapes surgery has been demonstrated in several large studies.


In contradistinction, Backous et al. reported, in a case series of 49 resident-performed stapes surgeries, that failure to improve postoperative success rates was due to individual learning curves.

To address the reduction in the number of otosclerosis cases and the resultant potential endangerment to clinical training of otolaryngology residents, Harris and Osborne conducted a survey among otolaryngology program directors to determine those otologic cases which are being performed with decreasing frequency.

84% of program directors felt fellowship training is not required to perform otologic surgery upon graduation or that it should be required for obtaining hospital privileges in seldom-performed otologic cases.
Only 8% of program directors felt stapedectomy to be too complicated a case for resident surgeons.

Technical adjustments have been introduced in the evolution of stapes surgery in an attempt to increase the efficacy and tolerability of the procedure.
Stockmayer’s Theorem

If it looks easy, it’s tough. If it looks tough, it’s damn well impossible.
Technique

Injection
Exposure

Tympanotomy
Landmarks

- Facial nerve
- Malleus
- Pyramidal process

Suprastructure Removal

[Image showing the footplate]
Fenestration

Posterior stapedotomy

Prosthesis

Tissue seal
Murphy’s Law

If anything can go wrong, it will.

Corollaries

1. Nothing is as easy as it looks.
2. Everything takes longer than you think.
3. If there is a possibility of several things going wrong, the one that will cause the most damage will be the one to go wrong.
4. If you perceive that there are four possible ways in which a procedure can go wrong, and circumvent these, then a fifth way will promptly develop.
Corollaries

5. Left to themselves, things tend to go from bad to worse.
6. Whenever you set out to do something, something else must be done first.
7. Every solution breeds new problems.
8. It is impossible to make anything fool-proof because fools are so ingenious.
10. Mother nature is a bitch.

Revision – A Thought
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