Secondary Acquired Cholesteatoma after Adenoidectomy and Myringotomy

Gary Linkov, MD¹, and Glenn Isaacson, MD¹,²

Sponsorships or competing interests that may be relevant to content are disclosed at the end of this article.

Keywords
acquired cholesteatoma, adenoidectomy, complication, myringotomy, otitis media with effusion

Received August 10, 2013; accepted August 30, 2013.

Discussion
A 6-year-old boy underwent adenoidectomy and bilateral myringotomy (without tube placement) for chronic middle ear effusion and conductive hearing loss. He reportedly had normal hearing at a postoperative visit. He presented to us 4 years later after developing swimming-associated otorrhea. Otoscopy revealed a radial, slit-like central perforation with a secondary acquired cholesteatoma involving the undersurface of the anteroinferior quadrant (Figure 1). He was treated by endoscopic transcanal resection of the quadrant and reconstruction with tragal perichondrium and cartilage. He has normal hearing and is free of disease 6 months later.

Adenoidectomy with myringotomy (with or without tympanostomy tube placement) is an established treatment for chronic middle ear effusion and conductive hearing loss in children who are older than 4 years¹,² or who have required previous tympanostomy tube placement.³ In large prospective series, it has a low incidence of complications and results in reduced time with effusion compared with tympanostomy tube placement alone. Gates et al⁴ describe a 1% incidence of chronic perforation in a large cohort followed for up to 36 months. None developed cholesteatoma.¹

Cholesteatoma can complicate myringotomy with tube placement. Golz et al⁵ followed 2829 children for 1 to 20 years after tympanostomy tube placement. Acquired primary and secondary cholesteatoma were found in 1% and were related to longer periods of intubation.

Secondary acquired cholesteatomas are believed to result from the migration of tympanic membrane keratinocytes into the middle ear from the margins of a chronic perforation or along the shaft of a tympanostomy tube.⁶ Although they are apparently a rare complication of myringotomy alone, they do occur. Tympanic healing should be confirmed following adenoidectomy and myringotomy to address the risk of chronic perforation and in hopes of preventing secondary acquired cholesteatoma.

The Temple University’s Human Research Protection Program approved submission of this work.

Author Contributions
Gary Linkov, analysis and interpretation, manuscript drafting, review; Glenn Isaacson, conception and design, manuscript drafting, review.

Disclosures
Competing interests: Glenn Isaacson, Covidien Inc (consultant on new products).

¹Departments of Otolaryngology–Head & Neck Surgery, Temple University School of Medicine, Philadelphia, Pennsylvania, USA
²Department of Pediatrics, Temple University School of Medicine, Philadelphia, Pennsylvania, USA

Corresponding Author:
Glenn Isaacson, MD, Department of Otolaryngology–Head & Neck Surgery, Temple University School of Medicine, 1077 Rydal Road, Suite 201, Rydal, PA 19046, USA.
Email: glenn.isaacson@temple.edu
Sponsorships: None.
Funding source: None.

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