Commentary on: “Endoscopic Lateral Cartilage Graft Tympanoplasty”

DOI: 10.1177/0194599817737976

We wish to address the article entitled “Endoscopic Lateral Cartilage Graft Tympanoplasty” by Wick et al. This is excellent work and constitutes an interesting study. The authors describe a novel lateral graft tympanoplasty technique that they use to treat total or near-total perforations combined with extensive myringitis. The authors conclude that transcanal endoscopic lateral cartilage graft tympanoplasty is indeed feasible, and they report favorable initial outcomes. However, the surgical procedure is rather complicated, and some details are not clear. The authors write in the Surgical Technique section,

Parallel canal incisions outlining the vascular strip are made at 12 o’clock and 5 o’clock. These incisions are connected adjacent to the annulus with a round knife along the medial aspect of the osseous posterior superior canal wall. . . . The tragal cartilage-perichondrium graft is placed medial to the malleus handle with the perichondrium draped into the annular sulcus. The previously elevated canal skin is repositioned on the anterior canal wall with slight overlap onto the cartilage-perichondrium graft, and the vascular strip is returned to its original position over the pedicled perichondrium.1

The surgical procedure thus features elevation of a tympanomeatal flap, canaloplasty, and ossicular chain reconstruction. Usually, the entire annular sulcus may be visualized by endoscopes varying in angle and diameter.2 Canaloplasty is both unnecessary and very difficult when otologic drilling must be performed one-handed (the other hand holds the endoscope). In addition, the closure rate was only 88.2% in the study in question.1 Endoscopic underlay and butterfly cartilage tympanoplasty not only afford higher success rates but are simpler and quicker. Özgür et al, using endoscopic butterfly cartilage tympanoplasty, reported a 94% success rate when a mixture of total, subtotal, and annular perforations was treated. Tseng et al5 reported a 93% success rate when endoscopic underlay cartilage tympanoplasty was used to treat anterior perforations. Thus, endoscopic lateral cartilage graft tympanoplasty should be applied cautiously in patients with total or near-total perforations. The cited authors mention in the Results that in 6 cases (18%), middle ear cholesteatomas were also removed. Furthermore, in the Methods, they remark that no patient required concurrent mastoidectomy and that an operative microscope was never employed.1 However, the precise locations of the middle ear cholesteatomas are not detailed, nor is the surgical procedure. If a middle ear cholesteatoma extends to the mastoid cells, it is difficult to completely remove the cholesteatoma during endoscopic middle ear surgery if mastoidectomy is not also performed.

Zheng-Cai Lou, MD
Department of Otorhinolaryngology,
The Affiliated YiWu Hospital of Wenzhou Medical University, Zhejiang, China

Disclosures
Competing interests: None.
Sponsorships: None.
Funding source: None.

References