Technical Section

TECHNICAL NOTES AND TIPS

Power-assisted endoscopic adenoidectomy using a 120° reverse-viewing telescope

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BACKGROUND

Since its first description in 1971, numerous variations for undertaking endoscopic adenoidectomy have been described (transoral,¹ transnasal,² 30° endoscopes,³ 70° endoscopes⁴) with various different debriding methods.

Comparisons with conventional methods (eg blind curettage)⁵ have consistently demonstrated faster resection, reduced bleeding

Figure 1 The patient is positioned as per tonsillectomy with a Boyle-Davis mouth gag in place suspended by Draffin rods. A 6G red rubber Robinson catheter is placed to elevate the soft palate.

Figure 2 The operating surgeon (H Williams) is holding the reverse-viewing 120° telescope in the non-dominant hand and using a microdebrider in the dominant hand. Images from the endoscope are shown on the operating-theatre monitor. The Boyle-Davis gag, Draffin rods, endoscope, microdebrider and visual display are used in other ENT operations, so new equipment is not required to undertake the procedure, thereby helping to reduce costs and minimise delays.

and, most importantly, more complete resection of tissue. Visualisation of adenoids at resection with direct surgical control of bleeding is fast becoming the accepted standard of care.

We propose a novel endoscopic technique using a 120° reverse-viewing endoscope: this to the first description of this technique in the literature.

TECHNIQUE

The patient is positioned as for conventional tonsillectomy (Fig 1). The soft palate is elevated using a single red rubber Robinson Catheter (Dover™; Covidien, Mansfield, MA, USA) to improve access (Fig 1). A reverse-viewing 120° Hopkins® II Endoscope (Karl Storz Endoscopy, Slough, UK) held in the non-dominant hand (Fig 2) inserted via a transoral approach (Fig 3) allows removal of adenoids under direct vision (Fig 4) using a microdebrider (eg RADenoid® 40° Xomed M4; Medtronic, Watford, UK) in the dominant hand (also used via a transoral approach).

DISCUSSION

This technique confers numerous advantages. The transoral (as opposed to transnasal) approach avoids trauma to the nasal passages. Positioning as per routine tonsillectomy allows quick operative turnover. Endoscopic adenoidectomy (unlike curettage) clears choanal adenoids whereby adenoid tissue encroaches into the posterior choanae. Although uncommon, choanal adenoids can result in total nasal obstruction associated with obstructive sleep apnoea, dysfunction of the Eustachian tube, as well as chronic infection of nasal and sinus passages.

We suggest that this technique using a reverse-viewing endoscope offers the least technically challenging method to undertake endoscopic adenoidal resection.

References

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Harvesting cortical temporal bone to close attic defects using a Traumadrive™

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BACKGROUND

Surgical intervention for cholesteatoma involves either exteriorisation or excision of disease by means of a canal wall down procedure (eg modified radical mastoidectomy) or a canal wall up procedure (eg combined approach tympanoplasty).¹ The latter often requires reconstruction of an eroded or dissected scutum to prevent the formation of a new cholesteatoma. Current approaches include harvesting tragal or pinna cartilage but these may not provide sufficient support, nor close large defects.^{2–5} We describe a technique that involves harvesting cortical bone that would otherwise be burred away when performing the initial step of a cortical mastoidectomy.

TECHNIQUE

The lateral face of the temporal bone is exposed as for a standard mastoid exploration (eg a postaural approach and anterior palva flap). The cortical bone to be harvested is marked. A Traumadrive™ (De Soutter, Aylesbury, UK) and 12mm short length oscillating blade are used to cut bevelled incisions into the bone, which may subsequently be elevated with chisel and mallet. The bone can then be sculpted to close the attic defect.