The Journal of Laryngology & Otology
January 2005, Vol. **119,** pp. 34–35

Suction diathermy adenoid ablation

DAVID OWENS, MBChB, MRCS (EDIN), MARIO JARAMILLO, FRCS,
MICHAEL SAUNDERS, FRCS*

Abstract
Adenoidectomy is a surgical procedure frequently carried out in otolaryngological practice, traditionally undertaken blindly with curettage using an adenotome following palpation of the adenoid bed. While a number of alternative methods have been described for surgical removal of the adenoid pad (power-assisted/microdebrider, transnasal adenoid ablation, suction coagulation and liquefaction/aspiration) none has become the definitive procedure. Suction diathermy adenoidectomy has been known and used for some time; it has gained in popularity over recent years and is established as an alternative to conventional curettage, particularly in children.

We describe several techniques which improve the view of the surgical field while performing suction diathermy adenoid ablation.

Key Words: Adenoids; Surgical Procedures, Operative; Diathermy

Introduction

Adenoidectomy using suction diathermy has become an acceptable alternative to traditional blind curettage. This is particularly true in children, in whom the suggested advantages (such as reduced blood loss and post-operative bleeding due to improved visualization, and controlled resection of adenoidal tissue) could be of benefit.[1] Another benefit is the ability to perform partial adenoidectomy, which may be desired if velopharyngeal insufficiency is considered a risk.[2] The complications of this procedure are minimal and are similar to those for previously described techniques.

Ablation of the adenoid pad using suction diathermy is a technically simple and short procedure; the length of operation has been reported as varying between five and 18 minutes[1] although operating time does vary with the experience of the surgeon.[2]

Our experience with this technique has shown a number of common difficulties experienced by trainee surgeons; of these, the most often described have been maintaining a constant, clear view of the operative field, and problems with hand-eye coordination using a reflected image. Other problems have included the need for frequent repositioning and cleaning of the mirror, and obstruction of the view due to the operative hand (i.e. the hand holding the suction diathermy). These factors, often combined, prolong the operating time for more junior practitioners.

The standard teaching for suction diathermy of adenoids is the use of a reusable laryngeal mirror and a malleable suction coagulator bent near its tip, via a per-oral route (Figure 1),[3] although per-nasal techniques have also been described.

Laryngeal mirrors are often used during this technique due to their large reflective area; however, unlike post-nasal mirrors they have a straight stem which can cause difficulties with positioning, and which, combined with the stem/mirror angle, reduces vision and is therefore not ideal (Figure 2).

Our suggestion is the use of a disposable dental mirror, which can be manipulated to an ideal angle,

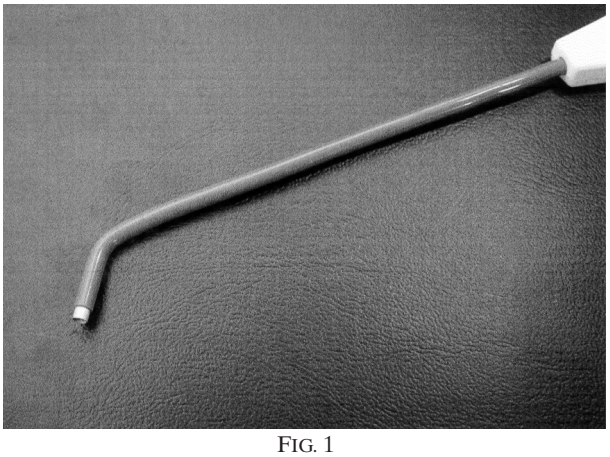

FIG. 1
Suction coagulator showing single anterior bend.

From the Royal United Hospital Bath, Bath, UK, and St Michael's Hospital Bristol, Bristol, UK*.
Accepted for publication: 28 October 2004.

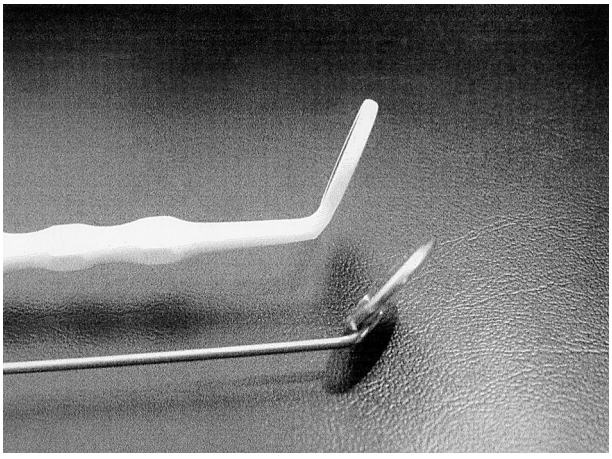

FIG. 2
The disposable dental and laryngeal mirror.

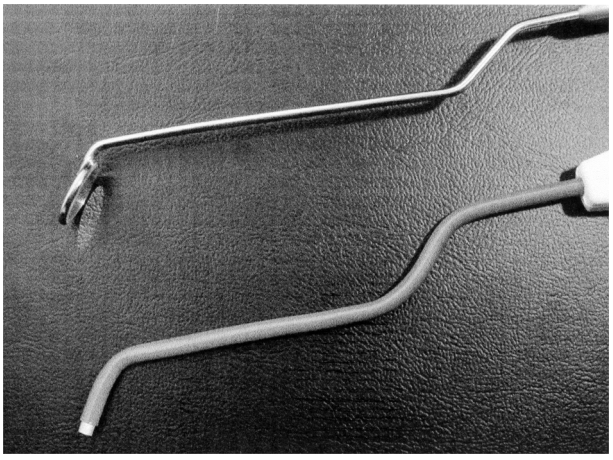

FIG. 3
The cranked stem modification of the suction coagulator.

together with a suction coagulator with its stem bent as that of a post-nasal mirror; this we believe improves the view of the surgical field, reduces obstruction of the view by the operative hand and so reduces operative time.

We will describe the technique using the aforementioned alterations in equipment.

Method

The surgical technique for suction diathermy ablation of adenoids requires the same preparation and positioning as traditional adenoidectomy. With a Boyle-Davis gag inserted, digital examination is performed to confirm the absence of a submucous cleft palate, and two small-bore suction catheters are placed through the nostrils and brought out of the mouth; these ends are then clamped under tension to elevate the soft palate. A disposable dental mirror is inserted into the oropharynx for indirect visualization of the adenoid pad and its relations to the choanae and torus tubarus.

A disposable, malleable 10-French gauge suction coagulator (foot switch E 2505, hand switch E2610-6, Vallylab) is used at the lowest setting to achieve tissue liquefaction; usually this is between 25 and 30 W. The unit is set to cutting and blend. The malleable suction tip is bent in two places, firstly 2.5 cm from the tip and again at the base, so the suction coagulator matches the shape of the nasopharyngeal mirror (Figure 3).

The suction coagulator is inserted with its tip at the central bulk of the adenoid and current is applied; the tip is then gently withdrawn to allow suction of the liquefied tissue.

The liquefaction is limited to the midline, avoiding the eustachian tubes laterally. The procedure is complete when the choanae are clearly visible and the nasopharynx has a smooth contour.

Partial adenoidectomy can be performed with this technique, leaving the inferior half of the pad to prevent or minimize velopharyngeal insufficiency associated with submucous cleft palate.

Conclusions

In the authors' experience the alterations suggested for suction diathermy ablation of adenoids have an advantage over conventional curettage described in other reports.[1,2] The techniques described improve visualization of the operative field by changing the view itself and also by altering the hand position. The modification of the shape of the suction coagulator also improves manipulation of the equipment, and expedites confidence with the technique of suction diathermy adenoid ablation.

References

1 Wynn R, Rosenfeld M. Outcomes in suction coagulator adenoidectomy. Arch Otolaryngol *Head Neck Surg* 2003;**129**:182–5
2 Wright E, Manoukian J, Shapiro R. Ablative adenoidectomy: A new technique using simultaneous liquefaction/aspiration. *J Otolaryngol* 1997;**26**:36–43
3 Hartley B, Papsin B, Albert D. Suction diathermy adenoidectomy. *Clin Otolaryngol* 1998;**23**:308–9

Address for correspondence:
Mr D Owens,
15 Lime Kiln Gardens,
Bradley Stoke,
Bristol BS32 0DB, UK.

E-mail: alnwick2@yahoo.com

Mr D Owens takes responsibility for the integrity of the content of the paper.
Competing interests: None declared