

David Albert

A personal series of 1400 cases over 12 years

Suction Diathermy Adenoidectomy

How do you take *astronauts* out?



Diseases of the Throat Nose and Ear, W.G.Porter, 1919

Re the blood to escape. The child should be kept in bed for two days after the operation, during which time only boiled food should be given, and for a week the diet should be limited to slops, and food that is easily swallowed.

† If reactionary hæmorrhage occurs some hours after the operation, it can almost always be stopped by sitting the patient bolt upright ; if, however, this procedure does not have the desired effect, pressure must be applied, after removal of the clots, by a swab or sponge dipped in a solution of peroxide of hydrogen (10 vols.) and held in a sponge-holder. The pressure

then slightly to either side. Hartmann's lateral ring-knife may now be used to scrape the fossæ of Rosenmüller ; it is introduced in the same manner as the curette, but is made to scrape laterally, care being taken to keep behind the cushions of the Eustachian tubes. Finally, the operator may insert his index finger into the nasopharynx, to make sure that all the adenoid vegetations have been removed. The gag is then withdrawn, and at the same time the patient is rapidly turned over on his face for a few seconds, after which he may be lifted into a sitting position, which has the effect of stopping the hæmorrhage. As the

Experience of conventional adenoidectomy

- Usually quick and effective
- BUT
 - occasional need for bipolar haemostasis
 - very occasional pack
 - Not under direct vision
 - Choanal adenoids not removed

Suction diathermy-Background

- 1989 Started at Great Ormond Street
- 1991 further visit to Robin Cotton
 - Suction diathermy for small adenoids
- 1992
 - Major complication from residence
 - Eventually stopped with 1920's r
- 1992
 - Imported suction diathermy from Valleylab



Suction Diathermy



Initial results- Advantages

Minimal blood loss

no post nasal packs

Visualized technique

(particularly for choanae)

Predictable length of operation

Initial results- Disadvantages

- Smell
(much reduced with antibiotics)
- Stiff neck
- Possible post operative edema

Published results

- Hartley BE, Papsin BC, Albert DM. 1998.

Suction diathermy adenoidectomy

Clin. Otolaryngol. 23:308-9

Bleed: 0/170 (0%) vs 5/240 (2%) p= 0.026

- Elluru RG, Johnson L, Myer CM, III. 2002.

- Electrocautery adenoidectomy compared with curettage and power-assisted methods.

Laryngoscope 112:23-5

- Koltai PJ, Chan J, Younes A. 2002.

- Power-assisted adenoidectomy: total and partial resection.

Laryngoscope 112:29-31

Equipment

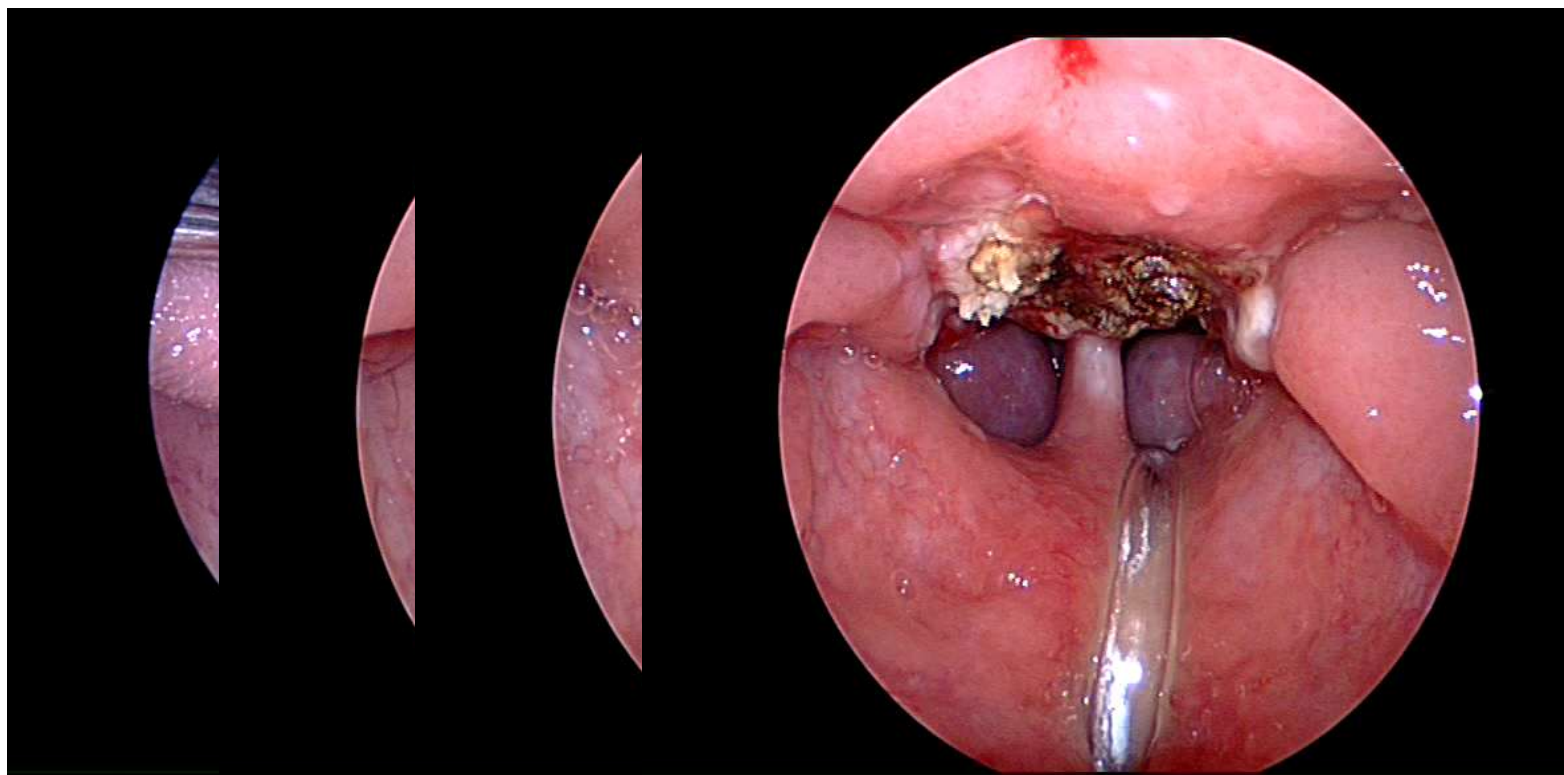
Microdebrider



Coblation



Video



Suction diathermy adenoidectomy

- Sucker to support palate
 - (avoid contact bleeding)
- Mirror with anti-fog
- Bend disposable suction diathermy
- Cutting diathermy 38 W (type important)
- Short bursts of power to keep tip Temperature down
 - To avoid thermal damage
 - To prevent tip clogging

Special cases

- Under 1 year
 - Small blood volume
- Poor Access
 - Craniofacial
 - Downs
- Submucous cleft palate
 - Partial adenoidectomy
- Bleeding diathesis

12 year series (1992-2004)

1413 children

same institution

same surgeon

same anaesthetist

Age range:

0.6-15.2 years

Male female:

849:564

With Tonsillectomy:

712 / 1413

With Ventilation tubes: 871 / 1413

Results

0 primary/secondary haemorrhage

20/1413 re-examined

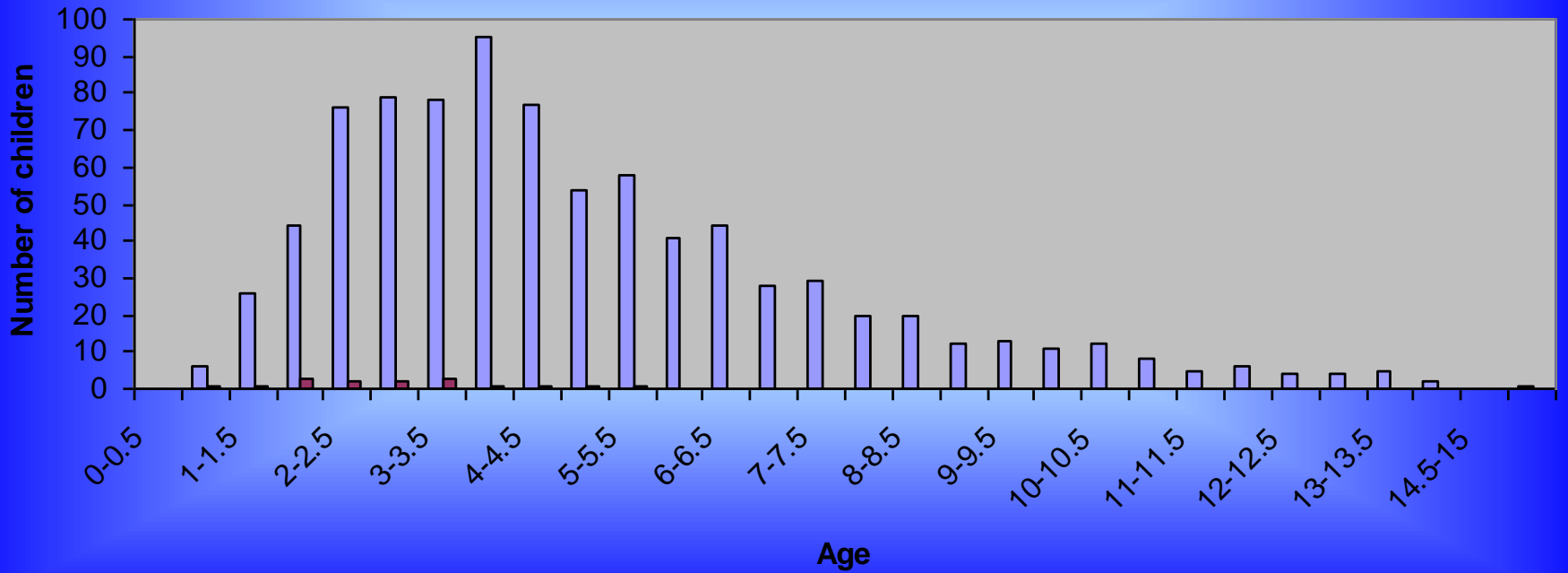
1 x large recurrence

5 x moderate recurrence

14 x minimal or no recurrence

Age at Adenoidectomy

single operation redo operation



Summary

- **Conventional Adenoidectomy**
 - Cheap, occasional bleeds, recurrence
- **Suction Diathermy**
 - Relatively cheap, reliable, may smell, low recurrence
- **Microdebrider**
 - Costs an issue, ooze, no smell
- **Coblation**
 - Costs an issue, ooze, no data

From iTonsils.com

- **Disadvantages of Suction Diathermy**
- Shrinking or removing the adenoids with heat requires a significant amount of thermal energy (heat).
- With large adenoids, this procedure can take substantially longer and the adenoids may only be reduced, not completely removed. If the adenoids are not completely removed, they may continue to be a source of infection, or regrow and cause airway obstruction (obstructive sleep apnea).



