David Albert

A personal series of 1400 cases over 12 years

Suction Diathermy Adenoidectomy
How do you take *astronauts* out?
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 haemorrhage 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 fossae 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 The gag is then withdrawn, and at the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 haemorrhage. As the
dependent position of the head may predispose to haemorrhage,
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 resident adenoidectomy (6/7 in ITU)
  - Eventually stopped with 1920’s reusable device
- 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

  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

  - Power-assisted adenoidectomy: total and partial resection.
    *Laryngoscope* 112:29-31
Equipment

Microdebrider

Coblation
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

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

Age

Number of children

Age

0-0.5 1-1.5 2-2.5 3-3.5 4-4.5 5-5.5 6-6.5 7-7.5 8-8.5 9-9.5 10-10.5 11-11.5 12-12.5 13-13.5 14.5-15
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
• **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).
A date for your diary!

Olympics - London 2012