



Tonsillectomy Pain



Preoperative preparation

- Get to know your patient!
- Appropriate amount of information
- Website information for parents
- Sedation / smooth induction



Per operative techniques

- Sevoflorane vs propofol
- Operative technique
 - Interpret claims with care!*
 - Diathermy: power is important
- Fentanyl/Tramadol
- IV fluids
- Steroids
 - ? ↑risk of bleeding*
- Per-operative topical LA



Postoperative management

- Paracetamol
 - BNF Dose higher than on proprietary meds
- NSAIDS
 - Risks*
 - Suppositories
- Codeine
 - Risks*
 - UK suppositories £450/course
- Topical Local Anaesthetic
- Chewing gum



Antibiotics to reduce post-tonsillectomy morbidity.

- Cochrane Database Syst Rev. 2010 Jul 7;(7):CD005607.
- 10 trials/ 1035 participants

- No reduction in pain with antibiotics.

- No reduction in need for analgesics.

- Not associated with reduction in secondary haemorrhage rates

Codeine, Ultrarapid-metabolism Genotype, And Postoperative Death

- Karen G. et al N Engl J Med. 2009 Aug 20;361(8):827-8 (Toxicologist)
- 2yr old
- OSA confirmed
- Routine surgery
- 2nd night fever, found dead next morning
- Codeine levels normal but high levels of morphine
- **Child found to have ultra-rapid metabolism genotype which causes the body to metabolize codeine at a faster rate, producing significantly higher amounts of morphine.**
- Gene: 1% of Caucasians but ? 30% in Africans

The effect of ibuprofen on postoperative haemorrhage following tonsillectomy in children

- Eur Arch Otorhinolaryngol. 2010 Oct 2.
- “There is no significant increased risk of haemorrhage after ibuprofen administration and it can be used safely for post-tonsillectomy pain relief”

A randomized controlled trial for perioperative morbidity in microdebrider versus cold instrument dissection tonsillectomy

- J Med Assoc Thai. 2010 May;93(5):558-65.
- **CONCLUSION:** Microdebrider tonsillectomy is an effective alternative procedure for children with tonsillar hypertrophy and results in improved postoperative pain but have more intraoperative blood loss.

Dexamethasone and Risk of Nausea and Vomiting and Postoperative Bleeding After Tonsillectomy in Children

- There were **26** postoperative bleeding episodes in **22** children
- **207** in study ie 10% bleed rate – very high
- Placebo: **2** of 53 (**4%**)
- Dexamethasone : 20 of 159 (**12%**)
- Dexamethasone, 0.5 mg/kg, was associated with the highest bleeding risk but medium dose < small dose
- **8/22** children had to return to OR because of bleeding, all dexamethasone group. Trial stopped early
- New Eng J M 300:22 2008

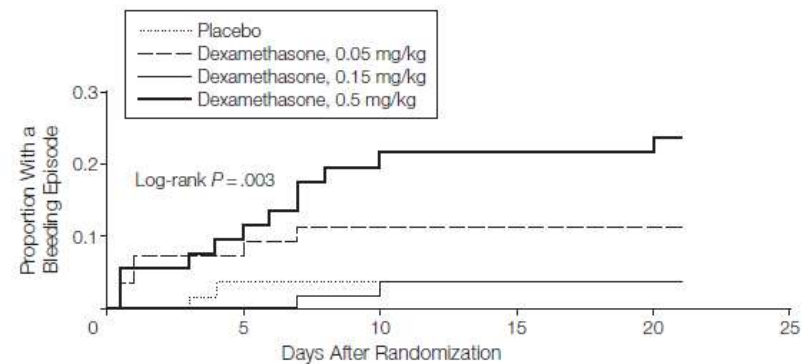
Table 4. Characteristics of All 22 Children Who Had a Bleeding Episode

Patient No./Sex/Age, y	Bleeding Category ^a			Received Ibuprofen Before Bleeding	No. of Bleeding Episodes/Surgeries for That Surgeon	Indication for Surgery	Surgical Technique ^b
	1	2	3				
Placebo							
125/M/4 ^c	Day 4			Yes	3/24	OSA	Combined
215/M/9		Day 3		Yes	6/36	OSA	Combined
Dexamethasone, 0.05 mg/kg							
47/F/6		Day 0		Yes	6/36	OSA	Combined
53/M/3			Day 7	Yes	1/5	OSA	Hot
84/F/12 ^c			Days 0, 9	No	1/15	OSA, RT	Combined
109/F/4			Day 1	No	6/36	OSA, RT	Combined
120/M/6		Day 1		Yes	3/17	OSA, RT	Combined
203/M/4	Day 5			Yes	2/15	OSA	Hot
Dexamethasone, 0.15 mg/kg							
49/M/4			Day 10	Yes	2/19	OSA	Hot
106/F/11	Day 7			Yes	1/7	OSA	Combined
Dexamethasone, 0.5 mg/kg							
3/M/4			Day 0	No	3/24	OSA	Combined
13/M/16		Days 7, 9		Yes	6/36	RT	Combined
27/F/6		Day 5		No	2/8	OSA	Hot
40/M/13		Day 7	Day 0	Yes	2/19	RT	Hot
89/F/15		Day 4	Day 6	No	3/17	RT	Combined
123/M/5 ^c	Day 20			No	6/36	OSA, RT	Combined
133/F/9 ^c		Day 8		No	3/17	OSA	Cold
156/M/7	Day 7			Unknown	1/16	OSA	Hot
173/F/9	Day 6			Yes	3/24	RT	Combined
180/F/5	Day 10			Yes	2/15	OSA	Hot
186/F/6	Day 3			Yes	2/8	OSA	Hot
196/F/5			Day 0	No	6/36	RT	Combined

Problems with trial

- High rate of bleeding and return to OR
- Single dose at induction but delayed bleeds
- Trial stopped early can \uparrow effect
- Animal studies don't support \uparrow bleeding
- No clear dose effect
- ? Related to surgeon

Figure 2. Proportion of Children With an Episode of Bleeding in the First 21 Days After Randomization



No. at risk	0	5	10	15	20	25
Placebo	54	51	51	51	51	51
Dexamethasone, 0.05 mg/kg	53	49	48	47	47	47
Dexamethasone, 0.15 mg/kg	54	51	50	49	49	49
Dexamethasone, 0.5 mg/kg	52	45	40	39	38	38

Summary

- What works for you
- No magic formula
- Need to decide about codeine/ibuprofen/Abs
- Talk to your patients
- Not just about pain