TOPICAL LEVOBUPIVACAINE DURING TONSILLECTOMY IN PAEDIATRIC PATIENTS

Bassem Mettias, Victoria Twigg, Tawakir Kamani
Queen Medical Centre Nottingham University Hospitals

Introduction

Tonsillectomy is a common ENT operation in the United Kingdom. It is formally associated with significant postoperative pain.¹ The control of pain after surgery would shorten recovery time, enhance oral feed with less risk of complication such as bleeding. 1.3% of patients had delayed discharge due to postoperative uncontrolled pain.²

To minimize postoperative pain after tonsillectomy, intraoperative use of opioids & corticosteroid, considered different surgical techniques and low heat bipolar use.

Intraoperative local anaesthetic onto the tonsil bed has been suggested to help with early pain control following tonsillectomy. A systemic review in 2008 suggested a benefit.³ Prior studies failed to show a difference.⁴

Aim

To demonstrate whether levobupivacaine used topically in children undergoing tonsillectomy shows an improved postoperative pain score and subsequent reduction of opioid analgesia use.

The FACES scale for young children

The visual analogue scale For older children /adolescents

Method

Prospective study of children up to 12 years old who had tonsillectomy +/- adenoidectomy in tertiary centre by the same ENT surgical team. Cold steel dissection technique was used with ties to lower poles and minimal use of bipolar diathermy at 7 watts. All had same protocol of standard general anesthesia with intaoperative fentanyl and dexamethasone, postoperative paracetamol and Ibuprofen for 10 days. Oral morphine sulphate ([®]oromorph) was prescribed for use on a as required basis for the first 3 days.

2 randomly assigned groups; half of the patients (Group I) had local levobupivacaine (chirocaine 2.5 mg/ml)⁵ soaked gauze swab in the tonsil bed at the end of operation for 30 seconds while the other half (Group II) didn't.

Parameters used were pain score, feeding and oromorph use . The pain score was recorded by the Trust validated Faces scale (0-3) for young children less than 8 or Wong-Baker VAS of 0-10 for children above 8. The Wong-Baker VAS is later converted into Faces scale (0-3) for the ease of analysis. Parents were given a paper slip to document the outcome on the 1st and 5th days postoperatively. A telephone review 6 days after surgery.

Result

43 patients with 41 response (19 in 1st group and 23 in the 2nd). Equal pain score during first 4 hours after surgery. On Day 2, Moderate pain (score 2) was recorded in 28% of group I and 30% in group II. Severe pain (score 3) was 17% and 28% for the groups respectively. 39% vs 52% respectively needed oromorph on 2nd day. On 5th day, the 2nd group showed less pain score but both groups had similar use of oromorph.

Indication for Tonsillectomy

Conclusion

Topical levobupivacaine at the end of pediatric tonsillectomy surgery has good control of early postoperative pain after the discharge from the hospital. It minimizes the need for potent analgesic. There is no late effect on the outcome of surgery. Its use is safe without significant complications.

Pain score

Oromorph use

Reference

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