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PAIN AND PONV FOLLOWING ADENOTONSILLECTOMY; TRENDS AND OUTCOMES IN A TERTIARY PAEDIATRIC CENTRE

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Background

GIRFT recommends that patients and hospitals benefit if ENT surgery is carried out as day case(1). Anaesthesia plays a key role in ensuring that this is achievable, by providing appropriate analgesia and prevention of PONV whilst delivering efficiency in a high-turnover list. Our prospective project within Birmingham Children's Hospital (BCH), aims to review and identify current practice trends against prevalence of post-operative pain and PONV.

Methods

We prospectively collected data for tonsillectomy and/or adenoidectomy cases at BCH between November 2022 to January 2023 totaling 124 cases, with an age range of 1 to 15 years (median 5 years). Data included anaesthetic management, surgical technique, post-operative management, and prevalence of pain and/or PONV.

Pain was measured using the FLACC scale in children ≤ 7 yrs, and numeric rating scale 0-10 in children > 7 yrs. Time intervals from induction of anaesthesia to first oral intake, rescue analgesia and hospital discharge were recorded.

Results

All patients were intubated, facilitated by airway topicalisation in 95%. Maintenance of anaesthesia was volatile-based in 86%, with TIVA used in the remaining 14%.

Multi-modal analgesia was used; IV opioids were administered in most cases, either Morphine (93%) or Fentanyl (5%). Pre-operative or intra-operative Paracetamol was given to 75%, and NSAIDs to 61% patients. Clonidine was used in 26%.

Dexamethasone was administered in 98% of cases and Ondansetron in 73%. Mild PONV manifested postoperatively on the day case ward in 6% of patients.

79% of patients exhibited no pain in recovery. On the ward, 65% experienced no pain and 11% showed moderate to severe pain. 37% required rescue analgesia, the majority of whom (65%) had received no Paracetamol and/or NSAID peri-operatively. Rescue analgesia was required in 60% of patients given a combination of Clonidine and Morphine, in contrast, only 20% of cases that received a combination of Paracetamol, NSAIDs and opiate needed rescue analgesia. Time interval to rescue analgesia was shortest when only opiate/Clonidine was used intra-operatively (163 mins), compared with those administered opiate/Paracetamol/NSAID (219 mins). No increased length of stay was noted between patients who received clonidine (279mins) and those that did not (289mins).

Average time from induction to oral consumption was 170mins, and 287mins to discharge.

Conclusion

Trends in anaesthetic management in this Trust followed PROSPECT guidance(2) with routine administration of Dexamethasone, Paracetamol and NSAIDS which reflected longer intervals to rescue analgesia. Routine use of opioids in our centre did not translate into higher rates of significant PONV that delayed oral intake or discharge. PONV prevalence was low with routine use of 2 antiemetics.

References

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