

Оценивались выраженность болевого синдрома, уровни воспалительных маркеров (СРБ, ИЛ-6), стабильность гликемии, частота побочных эффектов.

Результаты и обсуждение У пациентов основной группы зафиксировано значительное снижение послеоперационной боли, воспалительных реакций и побочных эффектов. Уровни СРБ и ИЛ-6 были ниже, гликемия — стабильнее. Потребность в дополнительных анальгетиках в первые часы после операции была минимальной.

Выводы Комбинация ибупрофена и парацетамола демонстрирует высокую эффективность и безопасность в качестве мультимодальной неопиоидной анальгезии при абдоминальных операциях у детей. Метод снижает хирургический стресс, частоту осложнений и необходимость в опиоидах.

Non-Opioid Multimodal Analgesia with Ibuprofen and Paracetamol in Pediatric Abdominal Surgery

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Keywords: multimodal analgesia, ibuprofen, paracetamol, children, postoperative pain, opioids

Abstract: This study aimed to optimize perioperative analgesia in children undergoing abdominal surgery by implementing a multimodal regimen using intravenous ibuprofen and paracetamol. A total of 105 patients aged 5–17 years were enrolled. The main group (n=75) received IV paracetamol (15 mg/kg) preoperatively and ibuprofen (10 mg/kg) near the end of surgery, with repeat doses over 24–48 hours. The control group (n=30) received opioid analgesia (morphine).

Results showed that the main group experienced significantly lower postoperative pain, reduced inflammatory markers (CRP, IL-6), more stable glycemia, and fewer adverse effects.

Conclusion: Non-opioid multimodal analgesia with ibuprofen and paracetamol provides safe and effective pain control in pediatric abdominal surgery, reducing surgical stress and opioid-related complications.

INTRAOPERATIVE TRANSESOPHAGEAL ECHOCARDIOGRAPHY FOR HEART FAILURE IN THE SURGICAL TREATMENT OF TETRALOGY OF FALLOT

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Keywords: Tetralogy of Fallot, congenital heart defect, intraoperative monitoring, transesophageal echocardiography, residual defect, cardiac surgery

Abstract: **2** Background: Congenital heart defects such as Tetralogy of Fallot (TOF) often require radical surgical correction. The quality of intraoperative monitoring is critical for surgical success. Transesophageal echocardiography (TEE) is an effective tool for real-time cardiac assessment and identifying residual lesions that may influence outcomes.

Objective: To assess the impact of intraoperative TEE on early postoperative outcomes in children undergoing radical surgical correction of TOF.

Methods: A prospective study was conducted from 2022 to 2024 at the National Children's Medical Center, including 200 pediatric patients with TOF. Patients were divided into two groups:

- Group 1 (n=70): Surgery without intraoperative TEE.
- Group 2 (n=130): Surgery performed with intraoperative TEE, cardiac monitoring, and tensiometry. In Group 2, TEE was performed immediately after discontinuation of cardiopulmonary bypass (CPB), but before cannula removal, allowing immediate correction of any identified residual defects.

Results:

- Residual defects such as pulmonary valve insufficiency and residual intracardiac shunts were detected and corrected intraoperatively in 19 patients (14.6%) from Group 2.
- Postoperative complications were significantly higher in Group 1 (31.4%) compared to Group 2 (14.6%) ($p<0.05$).
- Mechanical ventilation duration averaged 29.3 ± 2.1 hours in Group 1 and 19.7 ± 1.8 hours in Group 2 ($p<0.01$).
- The length of ICU stay was reduced by 2.4 days in Group 2 compared to Group 1 ($p<0.05$).

Conclusion: Intraoperative transesophageal echocardiography significantly improves surgical outcomes in Tetralogy of Fallot repair. It facilitates timely identification and correction of residual defects, reduces postoperative complications, shortens ventilation time, and decreases ICU stay. Routine use of TEE should be considered in pediatric cardiac surgeries.