

# Effects of Preoperative Caudal Epidural Block on Surgical Outcomes in Distal Hypospadias Surgery



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## OBJECTIVE

- In hypospadias surgery, early postoperative pain control is crucial before starting oral analgesia.
- Common methods for pain relief include penile block, caudal epidural block (CEB), and intravenous/oral analgesics.
- CEB and intravenous analgesia (IA) are the most frequently used techniques.
- CEB is one of the preferred methods in hypospadias surgery.
- Recent papers report increased postoperative complications (especially fistula) linked to CEB. →
- The debate on this issue remains unsolved.
- This study retrospectively evaluates the impact of CEB on outcomes in distal hypospadias surgeries in our center.



## MATERIALS AND METHODS

- Records of 103 pediatric patients operated for hypospadias between January 2020 and 2023.
- All patient charts were retrospectively analyzed.
- The study included **63 pediatric patients with distal hypospadias.**
- Patients were divided into two groups: with or without CEB during surgery.
- All operations were performed by certified pediatric urologists.
- Patients were evaluated based on surgical technique, age, and complications (Clavien-Dindo III grading).

## RESULTS:

- **63 children**
- Surveillance period: 36 months
- **26 children CEB** (%41.3)
- **37 children IA** (%58.7)
- Clavien-Dindo III grading system
- Average age  $45.12 \pm 26.76$  months
- A total of 63 children aged between 1 and 10 were evaluated.
- In our study, the surgical complication rate was 34.9% (n=22).

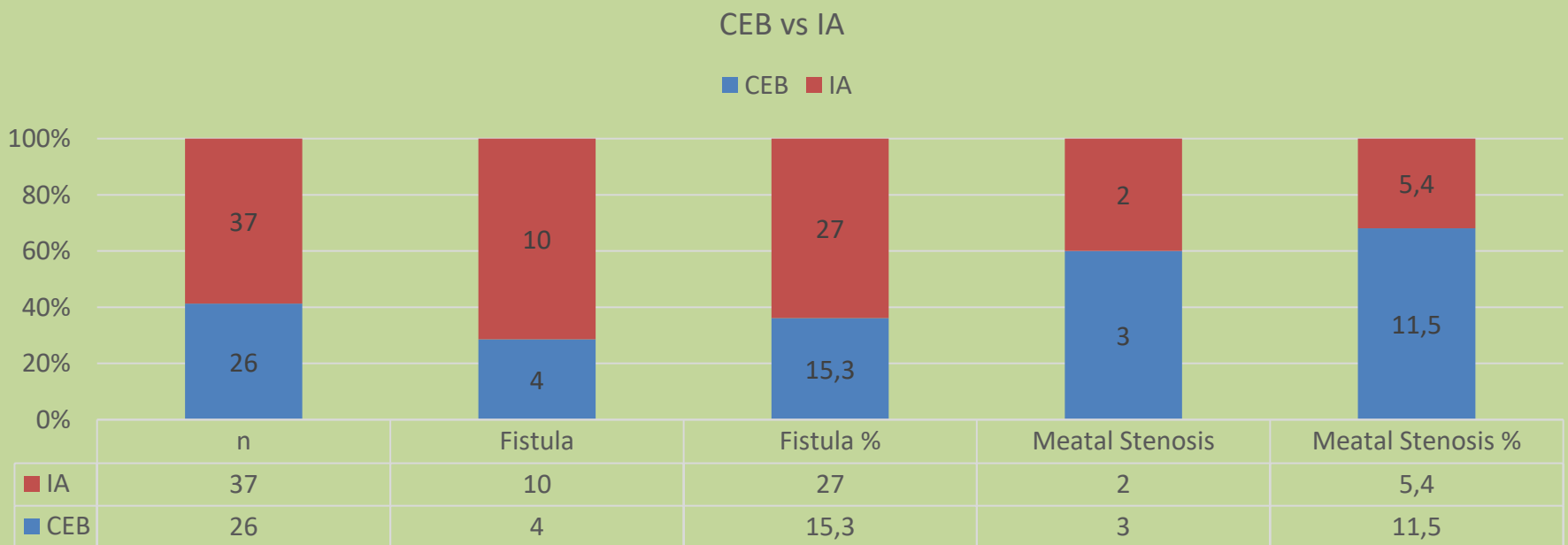


Figure: Development of Fistula and Meatal Stenosis after CEB and IA in Pediatric Patients with Distal Hypospadias

## CONCLUSION

- In this study, we have found **no statistically significant difference** in the incidence of **postoperative complications between CEB and IV analgesia** in children operated for distal hypospadias.
- CEB can be used safely as a pain management method in hypospadias repair.
- We suppose that prospectively designed further studies with a larger number of patients will be more effective in clarifying the issue.