8th WORLD CONGRESS of PEDIATRIC SURGERY
WOFAPS
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Titanic Mardan Palace Hotel
ANTALYA, TÜRKİYE

Rainbow® Children's Hospital
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SEDATION ENHANCED SUCCESS AND PREDICTORS OF FAILURE IN HYDROSTATIC REDUCTION OF INTUSSUSCEPTION: A SINGLE SURGEON EXPERIENCE.

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AIM:

To analyze the role and effectiveness of sedation and caudal block in enhancing the success rate of hydrostatic reduction of intussusception in children, and to identify clinical and radiological predictors contributing to failed reductions, based on the initial independent experience of a single pediatric surgeon.

MATERIAL AND METHODS:

A retrospective analysis was conducted on the medical records of 18 children who underwent ultrasound-guided hydrostatic reduction for intussusception over a period of 2.9 years. Data regarding patient demographics, clinical presentation, sonographic findings, number of reduction attempts, and type of anaesthesia were systematically reviewed and analysed.

Table – 1, Age distribution (n = 18)

Age Group	n (%)
Less than 6 months	2 (11)
6 to 12 months	10 (56)
13 to 24 months	4 (22)
More than 24 months	2 (11)

Table 2 : Presenting Complaints

Complaints	n (%)
Abdomen pain / Intermittent cry	18 (100)
Vomiting	12 (67)
Passage of red current jelly stool	9 (50)
Abdomen Mass	5 (28)
Fever	2 (11)
Dehydration	3 (16)

Table 3: USG Findings

Findings	n (%)
Target Sign	18 (100)
Ileo colic	14 (78)
Ileo Ileo colic	3 (21)
Colo colic	1 (6)
Free fluid	5 (28)
Lead Points (Excluding Lymphnodes)	3 (17)

RESULTS:

One child underwent successful reduction in the ultrasound suite without sedation. Six children were successfully reduced on the first attempt under sedation, while seven required a second attempt with caudal block, all of which were successful. Four children underwent open surgery; among them, one had a pathological lead point necessitating bowel resection and anastomosis. Factors significantly associated with failed reduction included delayed presentation, clinical signs of shock, abdominal distension, and complex sonographic types such as ileo-ileo-colic and ileo-colo-colic intussusception.

Table 4 :Levels of Anaesthesia

Anaesthesia	n (%)
Without sedation	1 (6)
With Sedation	6 (33)
Sedation + Caudal Block	7 (39)

Fig 1 - Manual Reduction

Fig 2 - Enteritis Cystica Profunda

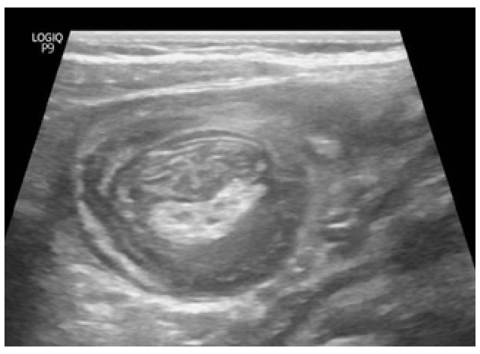

Fig 3 - USG - Target Sign

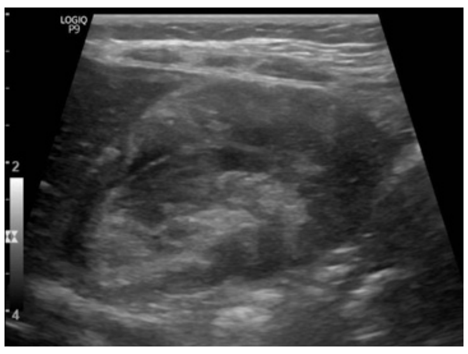

Fig 4 - USG - Pseudo kidney Sign

Fig 5 - V.I. Band

Fig 6 - Caudal Block

Conclusion

Caudal block significantly improves abdominal relaxation and contributes to higher success rates in repeat attempts. Delayed presentation, hemodynamic instability, and complex sonographic patterns remain key predictors of failure. Continued refinement of technique, patient selection, and peri-procedural analgesia can reduce the need for surgery and improve clinical outcomes.

References

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