

A Retrospective Study of Pain Management Strategies for Pediatric Hypospadias Surgery in a Tertiary Care Hospital in Western Rajasthan

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Abstract : Background and Aims: Hypospadias is one of the common congenital anomalies in males. Various modalities are used for pain management, including caudal, penile, pudendal, ring blocks, and systemic analgesics. There has yet to be a consensus regarding the most effective and safe analgesic method for controlling pain in these children. We planned this study to determine our institute's pain management practices for hypospadias surgeries. Material and Methods: This retrospective cohort study reviewed 150 children with hypospadias undergoing surgery from January 2020 to December 2023. Data regarding the mode of pain management, postoperative opioid requirement, PACU discharge, and complications was collected from the records. Results: For postoperative pain, 33 (22%) children received caudal block, 60 (40%) penile block, and 57 (38%) were managed by intravenous analgesics. A significant difference was found in the three groups, with the IV analgesic group requiring significantly higher opioid boluses in PACU [43 (75.4%) required two boluses ($p < 0.05$)]. The difference in PACU discharge time among the three groups was statistically significant ($p < 0.05$), with IV analgesics groups having the highest (55 mins [47, 60]), the Caudal group at 35mins (30, 40), and the dorsal penile block group at 35mins (25, 40). There was no significant difference in complications like edema, meatal stenosis, urethra-cutaneous fistula, or wound dehiscence among all three groups. Conclusion: Intravenous analgesics and regional blocks like caudal and penile blocks are the common pain management modalities in our institute. The regional blocks are effective in managing pain in the postoperative period and are not significantly associated with complications.

Keywords : caudal block, hypospadias, pain management, penile block

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