Enhanced Recovery After Surgery (Eras) Pathways Versus Conventional Care of Children Undergoing Surgery for Developmental Dysplasia of Hip- A Randomized Controlled Trial

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Abstract:
Forty four children, 1-6 years, with idiopathic developmental dysplasia of hip (DDH; 75% unilateral, 25% bilateral) received general anaesthesia for open reduction and/or pelvic osteotomy and femoral varus derotation osteotomy. Patients randomly allocated into Enhanced Recovery After Surgery (ERAS) and conventional care group (Block randomization; 22 each group). ERAS group received individual parental counselling using a spica doll, appropriate preoperative fasting, midazolam premedication, parental presence during induction, regional analgesia and dexmedetomidine infusion. Parental anxiety scores in conventional groups were significantly higher (Mean STAI-S: 50.86 ± 2.40 versus 43.05 ± 2.46). ERAS group had less post-operative vomiting episodes (7 versus 25; p <0.001), significantly reduced rescue analgesic requirement (mean 6.4 versus 13.1) and decreased hospital stay (4.59 ± 0.80 versus 8.14 ± 1.39days). Parental education module and Spica doll sensitized family to DDH management. This increased the child's acceptance of a spica cast, as s/he could relate with the toy in a cast. At three months followup, parental satisfaction using Swedish Parental Satisfaction Questionnaire revealed better scores across all eight domains in ERAS. To conclude, ERAS in DDH is a safe and effective protocol with multiple benefits and can be safely implemented to expedite patient care with greater parental satisfaction.

Keywords:
Enhanced Recovery Protocols, Developmental Dysplasia of Hip, Non-opioid analgesia.