284514 - ENHANCED PERIOPERATIVE MANAGEMENT OF CHILDREN WITH AUTISM: A PILOT STUDY

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Introduction: The prevalence of children with autism spectrum disorder (ASD) is increasing. 1 in 68 children is currently diagnosed with ASD\(^1\). In the hospital setting, difficulties with socialization, communication and behaviour are exacerbated\(^2,3,4\). Often quantitative measures do not capture the significant difference in perioperative stress experienced by these patients, their families and healthcare providers\(^5\). The aim of this study was to implement and evaluate a perioperative care pathway for children with autism spectrum disorder (ASD) that would decrease anxiety for patients and families.

Methods: Approval from the local Ethics Committee was obtained. Utilizing parental and healthcare provider feedback, a protocol including environment modification, individualized anxiolysis plans, specialized order sets, and Child Life support was developed over an 18-month period. Autism severity scores (ASS), communication styles, triggers and previous anesthetic experience were used to create an anxiolysis plan. This plan was created by a pediatric anesthesiologist and child life specialist following consultation in a Preoperative Clinic. Child life support was provided on the day of procedure and perioperative processing was altered to minimize transitions, wait times and NPO duration. Preoperative medication was individualized to the patient using midazolam and/or ketamine, administered orally, intravenously, or intramuscularly. Anxiety and sedation scores in same day surgery, at induction and in PACU were recorded. Feedback on the intrusiveness and efficacy of the protocol from nurses and anesthesiologists was obtained. Parental satisfaction and identification of aspects of the protocol that were most helpful were reviewed.

Results: A total of 20 patients were included in this pilot study. 85% (17) of patients were nonverbal and minimally interactive (ASS 1 or 2). The most common sensory dislikes were noise and crowds (75%, 15/20). Anxiety scores were high prior to premedication, however 90% (18/20) of anesthetic inductions were described as very good or excellent (ie. patient calm, accepted IV or mask easily). 60% of patients received midazolam and ketamine presedation. Average recovery time was 60-90 minutes. One episode of emergence delirium was observed in PACU. Parents described the personalized approach, quiet space, parental presence in the operating room, and dedicated child life support worker as advantageous. 50% parents felt no further changes were needed, while others suggested that minimizing people in the area and shorter wait times would be helpful. 100% of nurses, anesthesiologists and parents felt the program should continue.

Discussion: This pilot study demonstrated that a multidisciplinary perioperative care plan that decreases anxiety and agitation in children with severe ASD, was feasible at our institution. Initial feedback from nurses, anesthesiologists and parents has been very encouraging. The individual nature of anxiolysis plans was seen as a strength of the protocol by parents. A larger prospective study will help to identify the best way to support these families.

References:
References:
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