

## ABSTRACT

**Background:** Fasting of children before anesthesia is mandatory with the aim of to reduce the complications of due to regurgitation, vomiting, aspiration during anesthesia and surgery. Prolonged fasting times have several negative implications in children due to high fluid turnover quickly leads to dehydration, Perioperative hypotension, metabolic disturbances and hypoglycemia which leads to poor anesthetic outcomes.

**Objective:** the aim of this study was to determine the preoperative fasting time and its impact on blood glucose, hemodynamic among children undergoing elective surgery at Mbarara Regional Referral Hospital.

**Methods:** Across-sectional survey was used. A total sample of 181 pediatric patients was recruited with age less than 13years scheduled for elective surgery. Data were collected by the use of a data collection tool, entered with REDCAP and was transferred to STATA 15 for analysis.

**Results:** The children had a median age of 36(12-72) months with male predominance 128 (70.7%), 50.3% belonging to ASA I physical status. Mean duration of preoperative fasting time was 1 hrs. Prolonged preoperative fasting duration correlated with getting hypotension AOR 33.1, (95% CI 1.2– 881, P = 0.037). However, anesthesia team delivery of instruction of fasting time were likely developing hypoglycemia ( $\beta = -20.7$ , 95% CI: -37.6 - -3.8;  $p = 0.017$ ).

**Conclusion:** Children undergoing elective procedures were exposed to unnecessarily long fasting times as compared to standard guidelines of preoperative fasting time and it was almost twice compare to recommended guidelines of preoperative fasting time in children..