RANZCOG Regional SYMPOSIUM 2024 Glenelg

Peri-Operative Fasting: Are we causing more harm than good?

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Background: Peri-operative fasting, a widespread practice to prevent gastric content aspiration and reduce patient morbidity, may lead to negative patient experiences when extended due to scheduling uncertainties. The literature increasingly supports the notion of reducing fasting time for clear liquids to two hours pre-operatively, allowing for more flexible decision-making on fasting times based on unforeseen delays on the day of surgery. Although postoperative AKIs are often attributed to anaesthesia and intraoperative factors, the significance of pre-operative fasting in this context remains underexplored. This study addresses the impact of reduced pre-operative fasting on acute kidney injuries (AKI) as per KDIGO criteria in patients undergoing major gynae-oncology surgery.

KDIGO

	SCr	Urine output
Stage 1	Increase 1.5-1.9 x baseline or increase ≥27µmol/L	<0.5 mL/kg/hour for 6-12 hour
Stage 2	Increase 2-2.9 x baseline	<0.5 mL/kg/hour for ≥12 hour
Stage 3	Increase >3 x baseline **OR** SCr ≥354 µmol/L **OR** Initiation of RRT **OR** eGFR <35 mL/min/1.73m²	<0.3 mL/kg/hour for ≥24 hour **OR** anuric for ≥12 hour

Aim:

- Primary: determine if implementing reduced pre-operative fasting, specifically for clear liquids correlates with lower incidence rates of AKI (KDIGO definition) among patients undergoing major gynae-oncology surgery
- Secondary: identify preventable factors contributing to post-operative AKIs amongst gynae-oncology patients

Methodology: Quasi-experimental study involving a 3 month retrospective analysis of AKI rates within 30 days post operative, in patients undergoing major gynae-oncology surgery in a tertiary centre. Subsequently, a 3 month prospective review of AKI rates was conducted in the same cohort after introducing more proactive measures to reduce fasting times for clear liquids to as close to the standardized 2 hours pre-operative as possible. To account for variation in surgical technique, data was disaggregated by primary surgeon with subgroup analyses to compare outcomes.

Results: Out of 180 patients who underwent planned major gynae-oncology surgery, 163 remained after application of exclusion criteria. There was a significant reduction (33%) in AKI rates post intervention with associated risk factors including age >60, administration of angiotension receptor blockers <24hrs pre-operatively, administration of non-steroidal anti-inflammatory drugs <24hrs post-operatively, intra-thecal morphine use, intra-operative and post-operative hypotension.

Discussion: The literature increasingly supports the notion **of reducing fasting time for clear liquids to two hours pre-operatively**, allowing for more flexible decision-making on fasting times based on unforeseen delays on the day of surgery. Although postoperative AKIs are often attributed to medications, anaesthesia and intraoperative factors, the significance of pre-operative fasting and **consideration of post-operative analgesia** in this context remains underestimated and underexplored.