

## Peer Review File

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### Reviewer A

**Comment 1:** It is a very well-conducted study, but has no clinical application, it would be good to correlate with perioperative complications

**Reply 1:** It would be good to correlate with perioperative complications, however, these outcomes were not collected in the study. We have mentioned this issue in the limitation.

**Changes in the text 1:** Page 14, Line 1-2. We have added “this study did not explore other perioperative complications such as ketosis and low blood pressure in relation to fasting time.”

**Comment 2:** It requires major revisions in terms of outcomes, at present, this has already been shown that fasting times are always more than recommended.

**Reply 2:** We have clarified the primary outcome and secondary outcomes. Existing literature has shown that fasting times are longer than recommended. We also explored other factors that affect patient discomfort. We found that the younger age group 0-2 years, and late anesthesia start time after 12:00 PM were associated with high hunger score. Fasting duration and dextrose-containing fluid administration were not associated with high hunger score.

**Changes in text 2:** Page 6, line 16-19. We have added “Primary outcome was actual fasting duration for food and clear liquid. Secondary outcomes were 1) severity of patient discomfort reported by hunger score and thirst score, and 2) factors associated with high hunger score such as fasting time, age, dextrose-containing fluid administration, and anesthesia start time.”

### Reviewer B

Overview

The authors reported an observational study regarding the correlation between fasting time and hunger/thirst scores. They found no correlation, although the fasting time for food and clear liquids are very long.

I used the STROBE statement to review this manuscript.

### Major comments

**Comment 1:** I recommend starting the introduction by showing the importance of this topic, especially for children. I believe that citing Mendelson is not essential here.

**Response 1:** Thank you for your suggestion. The introduction part was revised.

**Changes in text 1:** Page 5, Line 2-20. We have added:

General anesthesia including intravenous sedation impaired protective airway reflex and put the patient at risk to pulmonary aspiration. (1,2) Although the incidence of pulmonary aspiration among children during anesthesia was low (0.007-0.18%) (3-9), preoperative fasting

is mandatory for patient safety. According to the guideline from American Society of Anesthesiologists (ASA) published in 2017, the optimal preoperative fasting time prior to anesthesia was recommended at least 2, 4, 6, and 8 hours after consuming clear liquid, breast milk, non-human formula milk, and fatty, fried foods or meats, respectively. **(10)** The preoperative fasting guideline in children from European Society of Anaesthesiology and Intensive Care published in 2022 reduced preoperative fasting time to only 1 hour for clear fluid and 3 hours for breast milk to reduce patient discomfort. **(11)**

The real-world fasting time reported in pediatric studies after 2010 was unnecessarily prolonged especially for clear liquid. The mean fasting times for food and clear liquid were 7.8-14.0 hours (12-24) and 2.3-12.3 hour, respectively. **(13-24)** Multiple perioperative complications had been described after extensive fasting such as hypotension after anesthesia induction (25,26), ketosis (23), increased incidence of postoperative nausea and vomiting **(27)**, and patient discomfort. **(16)** Carbohydrate-rich drink was reported to reduce hunger, thirst and anxiety in adults (28,29) but not in pediatrics (30,31). However, dextrose-containing intravenous fluid administration has not been investigated to reduce hunger and thirst in children.

**Comment 2:** I recommend consulting the new European Fasting Guidelines in Children published this year. Also, the most updated ASA guidelines are from 2017, not 2011.

**Reply 2:** We have changed the guideline to ASA 2017 and European 2022.

**Changes in text 2:** Page 5, line 5-11. We have added...

According to the guideline from American Society of Anesthesiologists (ASA) published in 2017, the optimal preoperative fasting time prior to anesthesia was recommended at least 2, 4, 6, and 8 hours after consuming clear liquid, breast milk, non-human formula milk, and fatty, fried foods or meats, respectively. **(10)** The preoperative fasting guideline in children from European Society of Anaesthesiology and Intensive Care published in 2022 reduced preoperative fasting time to only 1 hour for clear fluid and 3 hours for breast milk to reduce patient discomfort. **(11)**

**Comment 3:** In the introduction, it is recommended to present the topic, what is already known about it, the gap in the literature that drove the study, and conclude with the primary objective, not the primary outcome. The outcomes should be listed in the methods.

**Reply 3:** What is already known and the gap in the literature were revised, as described in comment 1. The primary objective is now stated in the last paragraph of background. The primary outcome is now stated in methods.

**Changes in text 3:** Page 6 line 16-19, we have added “The primary objective of this study aimed to determine the actual duration of preoperative fasting in pediatric patients. Secondary objectives were to examine the relationship between actual fasting duration and patient discomfort reported by hunger and thirst score. We also explored other factors related to high hunger score.”

Page 7 line 19-22, we have added “Primary outcome was actual fasting duration for food and clear liquid. Secondary outcomes were 1) severity of patient discomfort reported by hunger

score and thirst score, and 2) factors associated with high hunger score such as fasting time, age, dextrose-containing fluid administration, and anesthesia start time.”

**Comment 4:** Avoid repeating the results in the main text if it is already stated in the tables.

**Reply 4:** The repeated text has been removed.

**Changes in text 4:** Page 9, line 3-6, 9-14, and 20-21 were removed.

Page 10, line 11-16 were removed.

**Comment 5:** Conclusion: I recommend answering your primary objective in Conclusion and avoiding excessive extrapolations. For instance: the correlation between IV dextrose and hunger scores is a secondary objective, and you should discuss that in the Discussion section. The last sentence of the conclusion is also a recommendation and should be moved to the Discussion.

**Reply 5:** Thank you for your suggestion. We have revised the conclusion as advised.

**Changes in text 5:** Page 14, line 12-15 We have revised the conclusion. “The actual duration of preoperative fasting was found to be longer than the recommendation for both food and liquid in pediatric surgical population. High hunger score was reported in 76.4% of participants. Younger age group and anesthesia start time in the afternoon were risk factors for high hunger score.”

**Minor comments:**

**Comment 6:** I recommend checking if your keywords as listed in the MeSH terms from NCBI.

**Reply 6:** Keywords were checked.

**Changes in text 6:** Page 4, line 9 **Keywords:** Preoperative period, fasting, pediatrics, anesthesia

**Comment 7:** I also recommend a careful English review with an editorial office specialized in scientific publication.

**Reply 7:** English language was checked.