

## CORRESPONDENCE

## PERIOPERATIVE MEDICINE

## Preoperative fasting; time to reconsider

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**Summary:** The author has pointed out the need to reconsider mandatory fasting period before elective surgery. The protocol of NPO after midnight might well lead to a fasting period of more than 12 h, if the surgery is undertaken in the second half of the day, or is postponed at the end of the operating list. Patients might have to suffer from dehydration, dry mouth, and weakness, especially if they are old aged or debilitated with the current disease or other disabilities. The author proposes to keep the fasting period to a minimum and to be tailored according to the patient's physical status.

**Key words:** Dehydration; Dry mouth; Fasting; Geriatric patients

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Restriction of food and fluid intake prior to general anesthesia or sedation, is vital for patient safety. Because gag, cough and swallow reflexes, that protect the airway, are usually depressed by the drugs used for induction of anesthesia or sedation, and the patient is then prone to pulmonary aspiration, pneumonia and even death, if regurgitation or vomiting occurs. Therefore, for many years fasting has been recommended for periods of eight to twelve hours, or orders passed to keep nil by mouth after midnight.<sup>1</sup> The anesthesiologists advise surgical patients to comply with instructions before anesthesia for a specific period to reduce the risk of adverse consequences during general anesthesia and thereby ensure patient safety. However, when prolonged (more than 8–12 h), fasting leads to patient discomfort, hypoglycemia, dehydration and electrolyte disturbances.<sup>2</sup> Crude instruction lead to misunderstanding by the patient as fasting guide lines differ according to the institutions and the departments. Authors try to prevent patient inconvenience by clear and written instructions, so as to reduce the risk of adverse outcome. Anxiety and discomfort often result because of complete abstinence of drinks like tea or coffee. Faizan Zia et al. used mobile SMS reminders to reduce the unnecessary long fasting time.<sup>3,4</sup>

Brady et al. concluded that no evidence suggest a reduced period of restricted fluid intake before surgery results in an increased danger of aspiration, regurgitation or morbidity compared with the standard 'nil by mouth from midnight' fasting plan, and hence allowing the patients to drink water preoperatively resulted in lower gastric volumes.<sup>5</sup> This policy require to be standardized especially for patients who are not at risk of aspiration.<sup>6</sup>

Patient age, underlying diseases and habits affect tolerance and compliance for fasting. Children can't

withstand thirst and hunger; therefore those who are permitted fluids are more comfortable and calm.<sup>7</sup> Elderly patients are unable to tolerate prolonged periods of fasting, because of early dehydration and they are often threatened by electrolyte disturbances.<sup>8</sup> Patients with comorbidities also are at risk of being fasted for long periods of time.<sup>4</sup>

Patients and their relatives usually fear from having diet before operations without adequate knowledge of its impact. On the other hand, some consider having meals can support and provide energy to them to overcome the risks of anesthesia and surgery. Both these believes place the victim at risk of complications. Another important issue, which must not be ignored by the anesthetists and the surgeons, is that some patients may have their unspecified meal or fluid intake, despite doctors' instructions. It would place them at considerable hazard.

Preoperative fasting needs to be readdressed to ensure safety, as well as patient satisfaction. Although anxiety increases gastric emptying time, reassurance can help most of the patients. Dealing with cases as emergency and consider all of the patients as full stomach to overcome any hidden risk of regurgitation or vomiting is another option.

Prolonged fasting is dangerous and may lead to delayed recovery and should be managed appropriately. Guidelines from the European Society of Anesthesiology (ESA) suggested permission of clear fluid intake by children and adults 2 h before elective surgery, including cesarean section.<sup>9</sup> In addition this guideline considered that the mixture of tea and coffee with milk is 'fluid' as well. This allowance is sufficient to keep the patient comfortable. The use of pharmacological agents to decrease the risk of pulmonary aspiration was

recommended by American Society of Anesthesiologists Committee on Standards and Practice Parameters for application on healthy individuals prepared for elective procedures.<sup>10</sup> Allowing sips of water for all patients to relieve impact of dry mouth and throat. This greatly helpful for children, elderly and comorbid patients.

In the previous issue of 'Anaesthesia, Pain & Intensive Care', another important aspect of preoperative fasting was discussed by Useche LSV et al. They insisted that fasting protocols for routine patients cannot be applied to those on enteral feeding through a nasogastric tube. The authors recommended a fasting time between 45 min and 4 h (if the airway is to be manipulated during the procedure), is adequate to perform surgical procedures in patients with enteral tube nutrition. In other patients gastric suctioning before the procedure might be adequate. In this way it achieves nutritional goals of patients in the ICU without a higher rate of intraoperative and postoperative complications.<sup>11</sup>

**Conflict of interest:** None declared by the author.

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