Chapter 7

CURRENT APPROACHES ON PREOPERATIVE FASTING IN CHILDREN

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Night fasting, which is the conventional approach to preoperative fasting, is a commonly practice used by various health centers. However, based on empirical evidence, preoperative fasting guidelines defined various preoperative fasting periods in order to improve comfort of children and their parents. These guidelines suggest that unless contraindicated, fasting periods before elective procedures requiring anesthesia for clear liquids, breast milk, nonhuman milk & infant formula and light solid food may be either 1, 4, 6 and 8 hours or 2, 4, 6 and 8 hours, respectively (Thomas & et al., 2018). These fasting periods may improve comfort levels of the children and their families and eliminate the possible undesired metabolic results and behavioral problems caused by prolonged fasting.

Historical Evaluation of The Preoperative Fasting Guidelines

In 1948, Digby Leigh claimed that pediatric patients mayconsume clear liquid until at least one hour before operation (Leigh & Belton, 1948). Preoperative fasting during this period was to remove dissatisfaction due to vomiting rather than decreasing aspiration incidence (Maltby, 2006). However, increase in pediatric deaths related with aspiration resulted with the recommendations for preoperative fasting. Possible effects of gastric content on aspiration led the physicians to prolong preoperative fasting for children. Joseph Lister was the first person, who suggested that preoperative fasting periods for solid food and liquids should be different. In 1883, Lister recommended that children should not consume solid foodwithin two hours before the operation but may drink one glass of tea(Mesbah & Thomas, 2017). Starting with the 1960s, children were allowed to consume sugary drinks until two hours before anesthesia.

During the post-second world war years, different fasting periods for the solid food and liquids was neglected and restriction of oral intake of solid food or liquid after midnight was a widely accepted practice, especially in North America (Mesbah & Thomas, 2017; Walker, 2013). Wide use of this practice was related with the findings of the study of Curtis Mendelson. Mendelson analyzed 44.016

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