Pre-Operative Oral Carbohydrate Loading is Safe and Improves Patient Satisfaction
With Elective Ambulatory Surgery and Anesthesia: It’s Time for Change

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Abstract

Background & Objective: Most plastic surgeries are performed on an ambulatory basis. While patient safety is a priority for plastic surgeons, many are unaware of the current ASA preoperative fasting guidelines. Decades of research attest to the safety and health benefits of consuming carbohydrate-rich clear liquids 2 hours before elective surgery. This best evidence is rarely put into practice. The objective of this study was to assess the effects of such a beverage (Clearfast®) on patients’ discomforts from preoperative fasting and their safety and compliance.

Methods: A two-part multicenter, prospective clinical trial involved ASA Risk I-II adult patients having elective plastic, orthopedic or general surgical procedures at 5 hospitals. Part I was a descriptive observational pilot (n=263: Controls =108; Intervention =155). Part II was an IRB approved randomized trial (n=34: Controls =21; Intervention =13). All sites had previously adopted the ASA guidelines that determined patient eligibility. Exclusion criteria were pregnancy, obesity and GERD. Control groups observed the traditional midnight fast; Intervention groups consumed a carbohydrate-rich drink (Clearfast®) about 2 hours pre-op. Patient demographics, length of fasting, occurrence of regurgitation and/or aspiration and patient preoperative questionnaires assessing thirst, hunger, headache, nausea, anxiety about fasting and surgery plus discomfort were analyzed by a biostatistician.

Results: Regurgitation, aspiration, or other perioperative complications did not occur in Part I or II. Binary logistic regression model of Part I showed that if patients (1) did not have Clearfast®, (2) had surgical anxiety or (3) had fasting anxiety, or (4) had all three, they were (1) 5.7, (2) 4.1, (3) 2.7 or (4) 63 times more likely to be uncomfortable with their preoperative experience. Mann Whitney mean rank scores from the pooled data (n=297) indicated that, if patients did not consume Clearfast®, they were more likely to be thirsty (P=0.00), hungry (P<0.05), nauseous (P<0.05), anxious about both fasting and surgery (P<0.05) and uncomfortable (P=0.00). Control vs. Intervention fasting times were markedly different: 5-20 vs. 2-5 hours (P=0.00).

Conclusions: In appropriately selected patients, following the ASA guidelines and using a preoperative carbohydrate-rich beverage 2 hours prior to elective ambulatory surgery resulted in significantly shorter fasting times, reduced thirst, hunger, anxiety and nausea and improved comfort. Plastic surgeons should be aware of and comply with these guidelines to improve patient safety and satisfaction.

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