Reviewer’s report

Title: A randomized trial of preoperative oral carbohydrates in abdominal surgery

Version: 2
Date: 4 May 2014

Reviewer: Anders Thorell

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In this study, the authors aim to compare preoperative administration of a Carbohydrate drink (CHO) vs placebo and fasting in patients undergoing open colorectal resections and open cholecystectomy, respectively. Primary endpoints were subjective VAS estimation for postop well-being (7 items) measured at 0-24 h and 24-72 h postoperatively, respectively. Secondary endpoints seems to be SAPS scores and various aspects of recovery.

For patients undergoing colorectal resections, they report no difference between groups, except for thirst postoperatively in favor for placebo as well as CHO compared to fasting.

For patients undergoing cholecystectomy, there were reported differences between CHO and fasting groups for 5 out of 7 VAS items. Similar, however less pronounced differences were also found for patients receiving placebo vs fasting. However, no differences between CHO and placebo groups seem to have been found. Also, no differences between groups were reported for SAPS or various aspects of recovery.

Major compulsory revisions.

1 My main problem with this study refers to the study protocol. The authors have chosen to determine VAS scores at two different time intervals with relative broad ranges postoperatively; 0-24, and 24-72 h postop. It is not clear at what time point within these intervals measurements were actually performed. Was that standardized for all patients, or could any time point have been chosen? The degree of, for example, nausea could be expected to differ substantially between 24 and 72 h after open cholecystectomy. This needs to be clarified together with a justification for the choice of the two time periods by themselves.

2 The sample size needs to be discussed. Although it is difficult to perform a regular power calculation for ordinal data such as VAS, the authors should explain how they came up with the final number of patients in each group, for example, in relation to earlier published data.

3 It is stated in the abstract that 142 patients were enrolled in the “final evaluation of the results”. Does this mean that more patients were primarily included and thereafter excluded for any reason? This needs to be clarified, preferably in a consort diagram illustrating how many patients were evaluated for eligibility, excluded for any reason, etc.
4 Although appropriate methods for statistical comparisons between groups seems to have been chosen, ordinal data such as VAS should not be presented as mean +/- SD or SEM., but preferably as median and interquartile range.

5 The lack of difference between CHO and placebo groups should be discussed, since this is in conflict with some previous published data.

Minor essential revisions
1 It is stated in the methods section that “Data are presented using tabular and graphical presentations” However, I found no graphs.
2 Tables lack legends
3 In Table 3, it is unclear what column refers to what group.
4 More details regarding perioperative care should be given, since this could be expected to have influenced the outcome variables. Was this standardized? Was the ERAS protocol followed? What means were taken to counteract pain and PONV?
5 SAPS scoring system need to be explained. The description as given in the manuscript is very confusing “extremes of blood pressure and heart frequency…..” Reference?
6 Although there was reported no difference between groups for LOS or rehabilitation, no data are given. This should be provided.
7 In table 3, there seems to be a difference in VAS for nausea between Gr S vs Gr P, although this might not reach statistical significance. Type II error? This should be discussed.
8 In Table 3, weakness scores seem, in fact, to be higher in group S (CHO) compared to group C. Is that correct? If so, this needs to be discussed.
9 The enclosed “Authors response to reviewers” is confusing. Why is this enclosed in the current submission?
10 The manuscript needs extensive linguistic revision

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests