Reviewer’s report

Title: EFFECTS OF CYCLIC PARENTERAL NUTRITION ON PARENTERAL-ASSOCIATED LIVER DYSFUNCTION PARAMETERS

Version: 2 Date: 15 Aug 2017

Reviewer: Rebecca Williams

Reviewer's report:
Overall, this could be a very interesting and worthwhile paper however, major revisions are required.

Response to previous reviewers:
You report that there are no other similar studies to yours however, on doing a brief search I can identify a number of similar studies investigating the effect of cyclic PN on liver function. You also mention in your first line of discussion that a few other studies have looked at this. I feel you require greater justification on the importance of your study and this differs to previously published studies.

Manuscript

Page numbers would be useful.

Abstract:
Line 26: Please clarify whether patients were over 18 years or including 18 years of age.
Line 34: Please check the whole manuscript and ensure you are consistent with your use of cyclic parenteral nutrition, cycling parenteral nutrition, cycling PM, cPN, cTPN.
Line 39: Please start this sentence with Quantitative values....
Line 41: Please describe your qualitative variables and ensure there are results reported for these variables - if not, please remove from here.
Line 52: The first mention of liver parameters is in the materials and methods section; please add the abbreviations after the biomarker names in materials and methods so the reader is clear which you are referring to when you abbreviate.

Line 55: You report correlation results however, the methods for correlations are not reported.

Line 3: Biomarkers have previously been abbreviated, please do so in conclusion.

Line 10: Your conclusion is inconsistent with your results. You say all biomarkers improved in results but not in conclusion.

Introduction:

Line 2: Please start introduction with a definition of Parenteral Nutrition........ feeding intravenously etc

Line 40: Please start sentence with While not Whereas.

Lines 45-50: Please start within brackets as '(e.g. liver disease.....)' and remove 'etc' from the end of each bracket.

Line 52: Please refer to Therapeutic 'measures' as Therapeutic 'strategies'.

Line 2: Change measures to strategies again.

Materials and Methods:

Line 17: Please explain how information on patients was obtained e.g. The study involved screening of patient notes......to identify inpatients older than 18 years

Line 17: Please specify exact inclusion criteria as you mention in results that 37 patients met inclusion criteria but it is not overly clear whether this is just being over 18 years and being prescribed cPN.

Lines 22-24: Please re-word to make clearer

Line 45: Please remove 2 x - and replace with comma's, before and after "as our local protocol"

Line 52: You mention that PN composition was reverted, please explain what it was reverted to.

Lines 36-39: You mention that liver parameters were monitored from initiation of cPN until end of cycle. Please describe what initiates end of cycle; is it % of nutrition by mouth, stable biomarkers?

Line 47: Please describe in your statistical analysis section if your data were normally distributed and what statistical software was used for analysis.
Line 55: Please again mention what the qualitative variables were.
Line 57: Please state the quantitative variables that were used in correlation analysis.
Line 1: Given that biomarkers tend to be abnormally distributed, is Pearson's correlation appropriate?

Results:
Line 43: Should the end of this line read "between improvements in hepatic function parameters" and any demographic variables? There appears to be text missing from after "improvements". It would be interesting to see the range of durations of cPN and range of changes in biomarkers and the correlation between the two.

Discussion:
Lines 29-37: These lines would be better at the start of your discussion after "hepatic complications". Then go onto to describe other research.
Line 37: Your statement about no changes in ALP is not consistent with your results - you say there were improvements in all biomarkers. Please address.
Lines 40-57: It is unclear how this paragraph relates to your findings - please clarify.
Lines 43-51: "In our study we found that over 50%......". Please don't re-state results in the discussion. Turn this into a discussion point about why none of the measures were associated with hepatic function.
Line 5: Please replace - with comma before "exact".
Line 10: Please add a reference for your statement regarding TB increases occurring later than other biomarkers.
Line 18: Please add an 'e' before specially.
Line 18: References should be [19, 20] not [19][20].
In general, it would be good to see discussion of the clinical relevance of your findings not just significance. Do the changes in liver function that you observed mean better health outcomes for patient?

Conclusion:
Line 47: Please change "to normal levels in aspartate" to "to normal levels, including aspartate".
Line 54: no changes observed in Alkaline Phosphatase - again, please clarify as not consistent with results.

**Level of interest**
Please indicate how interesting you found the manuscript:
An article whose findings are important to those with closely related research interests

**Quality of written English**
Please indicate the quality of language in the manuscript:
Needs some language corrections before being published

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