Reviewer’s report

Title: Is Fasting a Necessary Preparation for Abdominal Ultrasound?

Authors:

Tariq Sinan (drtariq999@yahoo.com)
Hans Leven (hansol@squ.edu.om)
Dr Mehraj Sheikh (mehraj@hsc.kuniv.edu.kw)

Version: 1 Date: 11 Apr 2003

Reviewer: Ray McLoughlin

Level of interest: A paper of limited interest

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

Discretionary revisions:
1. Typo : Introduction, paragraph 2, line 3 - ? should read ‘...and those having to travel a long way to the US department’
2. Materials and methods : Please clarify - were all patients in study outpatients?
3. Results : It is stated, with regard to the quality of US scans for different organs, that there ‘was little difference between fasting and non-fasting patients’. Could this be backed up with a simple statistical analysis (e.g. chi-square test) to confirm that the differences are not statistically significant?
4. Results : It is stated that there was 'no significant difference in the amount of gas between fasting and non-fasting patients'. I'm not sure a statement referring to the amount of gas can be made in the absence of any attempt to quantify this variable in the study.
5. Discussion : In line 3 of the opening paragraph it is stated that a breakfast taken ' two to four hours before an abdominal US examination does not have a significant impact on the technical success' Do the authors have any data on the length of time since breakfast in their non-fasting patients?
6. Typo : Discussion, paragraph one, line 9 ‘to vary considerable' should read ‘to vary considerably’
7. Discussion, paragraph one, line 12 . I would favour ‘post cholecystectomy’ to ‘cholecystectomized’
8. Conclusion: It is stated that the study 'illustrates that the amount of gas in the GI tract is the single most important factor reducing visibility of the abdominal organs' I'm not sure this conclusion can be drawn from a study that made no attempt to quantify the amount of gas on the examinations.

Compulsory revisions:
1. Abstract: In the conclusion it is stated that 'routine fasting before abdominal ultrasound is not necessary except in small gallbladder lesions, specifically polyps and calculi less than 04mm.' As no data or discussion concerning effect of gallbladder lesion size on sonographic detection is presented in the paper I do not believe this conclusion is warranted in the abstract.
2. Materials and methods: It is stated 'All patients were then examined on the next day in the opposite physiologic state by the same radiologist.’ This would certainly be desirable, and strengthen the study. However, in the results section there appears to be no mention of the findings of this next day examination in the opposite physiological state. The results given appear to refer only to patients on their initial presentation, either fasting or non-fasting. I found this confusing. This point certainly requires clarification. If the patients did indeed have a second examination in the opposite physiologic state, as stated, then the data should be included in the results as the study then truly compares ultrasound examination in the same patients in the fasting and non-fasting state. I think it
is only in this way that you could be certain that you were not missing abnormalities in non fasting patients.

3. Discussion: Statement 'Obesity was not correlated with impaired pancreatic visibility at all, while there was a strong correlation between worst scoring pancreas results and the amount of GI gas.' These are results, and should appear in results section. The data for these conclusions is not presented, and should be. It is not reasonable in a scientific paper to talk of 'strong correlation' without statistical regression analysis to back up the conclusion.

4. Conclusion: It is stated that 'breakfast is compatible with a satisfactory technical outcome...' Having indicated that their patients usually have a light breakfast (opening line of Discussion) this should be revised 'light breakfast is compatible with a satisfactory technical outcome...' Other patient populations may not be so modest in their breakfast habits!

**Competing interests:**

None declared.