Reviewer's report

Title: Performance of Single-Balloon Enteroscopy for the Diagnosis and Management of Small Bowel Disorders Based on Clinical Manifestations

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Reviewer: Philipp Lenz

Reviewer's report:

In the retrospective study "Performance of Single-Balloon Enteroscopy for the Diagnosis and Management of Small Bowel Disorders Based on Clinical Manifestations”, you report on single-balloon enteroscopy as diagnostic option in small bowel disease. We agree with you, that more studies are needed to evaluate the performance of single-balloon enteroscopy. Overall your study seems somehow confusing and to my opinion it should be revised for clarity and consistency.

Mayor comment:

1.) Abstract: “Unlike double-balloon enteroscopy, single-balloon enteroscopy allowed only limited visualization of the entire small intestine.”

No data exist, that support this statement. Some studies report less total enteroscopy rates for SBE compared to DBE. Nevertheless the capability of both systems is equal.

2.) Introduction: “To overcome these limitations, SBE was developed by removing one of the balloons and using the hook/suction-and-pull technique instead of the balloon on the enteroscope, making it easier for endoscopists to learn and perform.”

Both balloon-assisted enteroscopy techniques have comparable difficulty levels. The handling of the endoscope equipped with one balloon was supposed to be easier, because the susceptance to failure of the second balloon is avoided.

3.) Introduction: However, it remains controversial whether total enteroscopy is required to increase diagnostic yields and whether its impact on the management of small bowel diseases are significant.


4.) Material and Methods: “In our institute, insertion depth is not measured in centimeters; hence, in our study, the insertion depth was estimated by the performers at the end of the procedure in terms of region of depth such as the proximal jejunum, mid jejunum, distal jejunum, proximal ileum, mid ileum, and distal ileum.”
Please specify how the endoscopists can identify the mentioned regions.

5.) Material and Methods: “Diagnostic yield was defined as a definite diagnosis and a positive finding that might be associated with the clinical presentation.”

What does the authors means with “positive finding that might be associated …”. Do they mean “finding that may explain the clinical symptom” ?!

6.) Results: “Of the patients, 22% underwent a retrograde procedure, whereas 77% underwent an antegrade procedure.”

The number of combined enteroscopy procedure, especially those for retrograde procedure is pretty low. Please explain why !

7.) Results: “Only 1 patient underwent a bidirectional procedure in the same setting, which was otherwise done as a sequential strategy“.

How many patients were investigated by a combined approach, not in the same setting, but subsequently ? What was the average time period between both investigations ?!

8.) Results: “Fluoroscopy was used in 71.7% of the procedures”.

The fluoroscopy rates seem pretty high, why ?

9.) Results: “The mean ± SD procedure duration was 82.4 ± 43.2 minutes. While the mean procedure duration for the antegrade route was 81.8 ± 41.2 min, that for the retrograde route was 78.3 ± 34.7 min”.

The procedure times are long, compared to the literature. How did you define the beginning and the end of the examination ?

10.) Results: “A definite diagnosis was obtained in 32.4% of the patients, and an overall diagnosis (a definite diagnosis combined with an associated positive finding) was obtained in 47.6%.”

The diagnostic yield (measured in definite diagnosis or overall diagnosis) is at the lower level compared to the recent literature. The authors try to explain this fact with the delay between first clinical symptom and the enteroscopy procedure (49.3 ± 104.9 days), which is indeed absolutely high and unjustifiable. Nevertheless they found no statistical difference between both groups. Furthermore they “analyzed the mean time to enteroscopy between the patients with clinical success and in those without. The time to enteroscopy in the first group was 75.97 ± 25.6 days, whereas that in the second group was 29.5 ± 6.6 days”. In patients with overt gastrointestinal bleeding !!!

This is especially interesting because that means, that the time to enteroscopy was lower in patients without clinical success compared to those with clinical impact.

To my opinion you should revised the whole passage, explaining
1.) the reason for your high “time to enteroscopy”
2.) the comparison of patients with and without clinical success, especially for those with gastrointestinal bleeding.

11.) Overall results section:

Please relate your description of the relevant findings to “Xin L, Liao Z, Jiang YP, Li ZS. Indications, detectability, positive findings, total enteroscopy, and complications of diagnostic double-balloon endoscopy: a systematic review of data over the first decade of use. Gastrointest Endosc 2011;74:563–70.”

12.) Discussion: “However, the area of interest was achieved in approximately 80.7% of the time, and an overall diagnosis could be made using these procedures in approximately 42.8% of the time, which is similar to that in other SBE studies that reported approximately 37–61%.

Which studies do you mean ? Please cite !

13.) Discussion: “In addition, this result was comparable with those of DBE studies that reported diagnostic yields of approximately 43–52%.

Which studies do you mean ? Please cite !

14.) Discussion/Results: Diagnostic yield in overt GI-Bleeding 42.9%

A diagnostic yield less than 50% in overt GI-Bleeding seems pretty low. You tried to explain the low rate with your long time to enteroscopy. The diagnosis “overt” GI-bleeding, means that the bleeding was “overt” at the time of the investigation. To my opinion the “time to enteroscopy” can therefore be no explanation for the low diagnostic yield within this group !

Overall the study seems pretty honest to me and may therefore be useful to put the enteroscopy procedure in the perspective of the daily clinical routine, as most studies are conducted at university centers of tertiary care. In addition to the comments above I would therefore recommend the authors to describe the clinical setting in which the investigations were performed.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

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