

Larissa 3<sup>rd</sup> March 2019

To World Journal of Gastrointestinal Surgery

Dear Sir or Madam,

With reference to the review article titled 'Single incision laparoscopic fundoplication: a systematic review of the literature' (46370), I would like to submit the replies to the comments of the reviewers.

**Dear Reviewer 1**

**Thank you for your valuable comments**

**Reviewer 1**

**1. Please add the limitations of the study in the discussion section.**

*The following limitations have been introduced in the discussion section:*

*'Since our study is a systematic review of previously published trials, the validity of its estimations is inherently influenced by the methodology of the eligible studies. In this case, the majority of the included trials consisted of, either case reports, or retrospective analyses and only a few prospective studies were identified. In addition to this, most of these series incorporated a small sample size, thus inhibiting the strength of our results. Due to the fact that the learning curve is directly associated with the postoperative outcomes, another bias introducing factor could possibly be the inconsistent reporting of the number of the operating surgeons and their experience in single port surgery. Finally, although the identification of the various technical methodologies was considered as an endpoint in our study, the existence of these variations contributes in the overall heterogeneity levels.'*

**2. What are the new knowledges from this study?**

The present study is a systematic review of the literature regarding SILS fundoplication. The new knowledges introduced from this attempt is the summarization of the technical variations reported for this procedure and the estimation of the pooled perioperative endpoints, such as conversion rates, operation

duration, LOS, blood loss and complication, recurrence and mortality rates. The following has been included in the conclusion:

*‘Our study is an attempt to provide an overview regarding the application of SI fundoplication. Pooled results validate the safety and efficacy of the single port approach, although the technique is not yet standardized and many methodological variations have been described’*

### **3. Finally, please recommend the readers “How to apply this knowledge for routine clinical practice?”**

Since our study is a systematic review of the literature regarding SILS fundoplication, it can be used as a reference for the various technical variations applied. Moreover, our pooled perioperative results validate the safety and efficacy of the SP approach, thus, suggesting it as an alternative to the conventional multiport approach. The following has been included in the conclusion:

*‘Our study is an attempt to provide an overview regarding the application of SI fundoplication. Pooled results validate the safety and efficacy of the single port approach, although the technique is not yet standardized and many methodological variations have been described. The majority of the trials reporting on SI fundoplication were case reports and studies of a low quality level, without a comparison arm of the conventional multi-port procedure and other methodological variations. Therefore, further randomized controlled trials, of a larger sample size are required, in order to draw a safe conclusion considering the application of SI fundoplication.’*

The following has been included in the core tip:

*‘This systematic review summarizes all available data about the use of single incision laparoscopic fundoplication. Although the technique is not yet standardized, this study validates the safety and efficacy of the single port approach compared to conventional multiport approach.’*

## Reviewer 2

Dear Reviewer 2

Thank you for your valuable comments

**1) In the section “Eligibility Criteria”, the criteria to establish which outcomes are considered of interest should be specified**

The following has been included in the Eligibility Criteria:

*‘Eligible studies should provide perioperative results (i.e. complication, mortality or conversion rates, operation duration and follow up) on single incision fundoplication.’*

The following has been included in the Data collection:

*‘Data extraction included the recording of data regarding the included studies (first author, country and type of study, follow up, number and experience of surgeons, sample size and gender, age and BMI allocation of the patients), patient characteristics (ASA score, previous operations and surgery indication), technical characteristics (single port device, instrument type, liver retraction method, dissection device, boogie size, suturing method and pneumoperitoneum pressure) and perioperative outcomes (operation duration length of hospital stay, blood loss and conversion, complications, recurrence mortality and incisional hernia rates).’*

**2) When comparing data (e.g. times of intervention, length of hospital stay), all the data useful for a statistical analysis should be reported, for example: standard deviation, interval between minimum and maximum value, statistical significance, etc**

Our study is a systematic review of the current literature regarding SILS fundoplication. As reported in the Material and Methods section, in case that the mean and the standard deviation were not provided, they were calculated from the respective median, range or interquartile range. Pooled categorical variables were reported as N(percentage). Pooled continuous variables were provided as mean. Standard deviation for overall continuous variables was not estimated, since raw data were unavailable. In the Discussion section, a description of our findings and a narrative comparison to the respective literature reports was provided. No direct statistical comparison was performed and therefore no confidence interval or significance level was calculated.

**3) Some results are reported in the Discussion instead of in the Results section: this generates a bit of confusion; if they are taken from literature, the source should be mentioned**

In the Results section, the pooled estimations were provided. The results reported in the Discussion section were taken from the provided manuscript tables. All literature results were cited, respectively.

**A few typos and very little linguistic revisions are present. For example, in the sentence (see Discussion) “the respective minimal invasive application prerequisites the possession of advanced skills”, “prerequisites” does means “requires”?**

Corrections have been performed as suggested.

Should you need any further information, please do not hesitate to contact me.

Yours sincerely,

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