

Peer Review File

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Reviewer A

In my opinion, the analyzed topic is interesting enough to attract the readers' attention. The aim of this review was to analyze the current state of robotic-assisted laparoscopy in pediatric tumor resection, assess the necessary framework of minimally invasive surgical oncology and describe future developments of the robotic technology. I think that the abstract of this article is well organized and clear.

Comment 1: Maybe, it could be useful the frailty assessment for this kind of particular patients. I suggest this article as an example : The role of preoperative frailty assessment in patients affected by gynecological cancer: a narrative review Ottavia D'Oria, Tullio Golia D'Auge, Ermelinda Baiocco, Cristina Vincenzoni, Emanuela Mancini, Valentina Bruno, Benito Chiofalo, Rosanna Mancari, Riccardo Vizza, Giuseppe Cutillo, Andrea Giannini Vol. 34 (No. 2) 2022 June, 76-83 doi: 10.36129/jog.2022.34the state of the art of preventing protocols and screening protocols in order to sensitize also young women.

Response 1: The authors agree with the reviewer's comment on frailty assessment in children treated for active cancer, especially in determining the potential influence of the frailty score on postoperative complications. However, no such frailty score has been described in children with solid cancer, only in children with liver disease or treated for acute lymphoblastic leukemia to screen for dexamethasone-induced sarcopenia.

The ASA score is usually used to assess surgical frailty as in our series of multidisciplinary robotic surgery program (doi: 10.1097/SLA.0000000000005808). The ASA score was, however, never reported in the reviewed studies.

Comment 2: Furthermore, I think that the analysis of the surgical approach should be better explained step by step. I think that this article could be an example PMID: 36498515.

Response 2: We thank the reviewer for his remark and interesting reference. The paper on hysterectomy reports on high evidence data, based on several randomized control trials, comparing robotic to laparoscopic or open approach. Pediatric literature is, however, much poorer and we currently have very little evidence on the benefits of the robotic approach. The key messages we are trying to convey in this paper are the small amount of evidence compared to adult literature and the difficulty in editing clear robotic guidelines because of the heterogeneity of the pediatric cancer population. However, our experience in robotic surgical oncology led us to publish a first set of guidelines based on tumor characteristics and location.

These guidelines were summarized in Table 3 and added to the main body.

Because of these reasons, the article should be revised and completed.

Comment 3: Moreover, the reference part should be reorganized and modified (doi).

Response 3: The reference style was modified according to TP's requirements.

Comment 4: Tables' layout should be improved.

Response 4 : Tables' layout was improved and data was added to Table 2.

Considered all these points, I think it could be of interest for the readers and, in my opinion, it deserves the priority to be published after minor revisions.

Reviewer B

Dear Authors,

thank you for your submission. Here are my observations.

The paper is well written, there is no need for major linguistic revisions.

The topic is interesting and relevant as the robot-assisted surgery is spreading in the pediatric field and is more and more often applied also to the oncological pediatric pathologies, but some skepticism is still present.

Comment 1: The Introduction clearly presents the current state of the clinical practice. In my opinion, the aims declared could be more explicative about “to assess the necessary framework of minimally invasive surgical oncology”.

Response 1: The phrase “to assess the necessary framework of minimally invasive surgical oncology” was changed to “show the pitfalls in establishing clear guidelines in minimally invasive surgical oncology” to be more explicit.

This study includes thoracic, abdominal and oral robotic surgery, therefore there is a great heterogeneity as the fields of application and the anatomical districts vary greatly.

In Materials and Methods it is also stated that case reports were included.

Given the peculiarity of this pediatric field and the small number of cases performed and reported in literature, these choices are understandable in the perspective of reaching a sufficient caseload to draw meaningful conclusions.

Overall the number of studies and of patients included is in line with the extent of the pediatric reports.

In the Main Body both the studies included in the review and additional literature papers are discussed.

Comment 2: For some of the studies reported it could be explicitated if they refer to adult or pediatric populations (lines 88-93, 122-132) as this could make the reading more clear without the need to look into the References section.

Response 2: More explicit phrases were added in the main body to make it clearer to the reader whether the citations refer to adults or children.

Comment 3: The core of this review lies in the lines 109-116. This important

paragraph could be highlighted and exploded and placed at the beginning of the main body of the paper.

Response 3: The paragraph was placed at the beginning of the main body, as suggested.

Comment 4: The data listed are not analyzed in depth, it could be interesting to report some descriptive data analyses (populations' characteristics, conversion rates, outcomes, complications..) and some statistical analyses if possible, even if the great heterogeneity of these studies surely makes it a great challenge.

Response 4: Descriptive data namely age at surgery, conversion rate and postoperative complications were added to Table 2. However, giving the heterogeneity of the data, we could not find any relevant statistical analysis to better describe the data shown in Table 2. The aim of Table 2 was to give a plain overview of current robotic surgical oncology.

The Conclusions can be inferred from the literature discussed.

The References are extensive and used coherently.

Comment 5: In Table 1 it is specified that the selection of the articles included in the review was conducted by one of the authors. It could be explained what were the criteria used and it could be interesting to add a flowchart to show how many studies were excluded during the selection processes.

Response 5: A flowchart of the reviewing process was added to the manuscript (Figure 1).

Overall I enjoyed reading this paper and I feel that it could contribute to support the use of robotic surgery in pediatric oncology.