

Responses to the reviewers' comments

Reviewer #1:

Comment: Recently a study was published evaluating appendiceal caliber and its diagnostic yield in pediatric appendicitis in the context of a multivariable index. It is interesting to consider as a tool a multivariable score that includes items from different areas (clinical, analytical and radiological). I recommend reviewing it and including the reference Arredondo Montero J, Bardají Pascual C, Antona G, Ros Briones R, López-Andrés N, Martín-Calvo N. The BIDIAP index: a clinical, analytical and ultrasonographic score for the diagnosis of acute appendicitis in children. *Pediatr Surg Int.* 2023 Apr 10;39(1):175. doi: 10.1007/s00383-023-05463-5. PMID: 37038002; PMCID: PMC10085908.

Our response: This section has been revised, as highlighted in the revised text.

Comment: Clarify in the abstract that the study is retrospective. The introduction begins abruptly. It is not correct to start a paper by saying "It has been recommended".

Our response: This section has been revised, as highlighted in the revised text.

Comment: The methodology selected for patient inclusion could constitute a selection bias. Ideally, the authors should have compared the sample analyzed with the total potentially eligible population at the beginning of the study. Clarify as a limitation.

Comment: There is great variability in the professionals who performed the ultrasound study. Consider as a limitation. Were they radiologists or was it POCUS?

Our response: This section has been revised, as highlighted in the revised text.

Comment: Histopathologic classification: Specify (describe) that it was considered phlegmonous, gangrenous and perforated appendicitis. Specify (describe) what was considered a negative appendectomy.

Our response: This part related little to this manuscript, and no more detail address is required.

Comment: Specify which test was used to assess the normality of the distribution of quantitative variables.

Our response: These were suggested in the results, no more details were required.

Comment: Although the authors clarify that an expert English reviewer was used, there are expressions in the text that sound unnatural or forced. Review (e.g., The receiver operating characteristic (ROC) curve was drawn; veteran sonographer).

Our response: The English has been revised.

Comment: this study magnifies the diagnostic yield since it does not include patients without appendicular identification, this should be added as a limitation.

Our response: It had been addressed before.

Comment: Explain Youden's formula (J). Clarify whether $p < 0.05$ is one-tailed or two-tailed. The discussion would be enriched by adding aspects such as the results of radiologist vs. clinician when performing the ultrasound, the rate of non-identification of appendectomy, the variability in the measurements or the possibility of using templates with multiple items to standardize the ultrasound reports (as well as the ultrasound training directed to this pathology).

Our response: This section has been revised, as highlighted in the revised text. The authors believed that other aspects do not need to change.

Comment: The latest update of Helsinki is from 2013, not 2000. Review and adapt the ethical

regulations. <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>

Our response: This section has been revised, as highlighted in the revised text.

Reviewer #2:

Comment: The title of the manuscript is too long and must be shortened to meet the requirement of the journal (Title: The title should be no more than 18 words).

Our response: The title has been revised, and shortened new title has been rephrased.

Comment: Original source images are required.

Our response: Original source images will be uploaded.