Reviewer’s report

Title: Seasonal variations in the occurrence of acute appendicitis and their relationship with the presence of fecaliths in children

Version: 0 Date: 22 Sep 2019

Reviewer: Zenon Pogorelić

Reviewer's report:

1. Introduction - Few important sentences about appendicitis and treatment should be mentioned. Please provide following information and references at the beginning of the Introduction section:
   Acute appendicitis is the most common surgical condition in children (REF: Indian Pediatr. 2019;56(4):299-303.). In pediatric population complicated intra-abdominal infections in most of the cases are caused by perforation of the appendix, and may be one of the most important causes of morbidity in children (REF: Surg Infect (Larchmt). 2019; Doi: 10.1089/sur.2019.025.). Many studies showed that laparoscopic appendectomy is a safe and effective procedure for treatment of acute appendicitis in children (REF: J Laparoendosc Adv Surg Tech A. 2017;27(6):645-650. and J Surg Res. 2017;212:101-107.).

2. Please provide clear inclusion and exclusion criteria in methodology.

3. Please provide hypothesis, primary and secondary outcome measurements in methodology.

4. Avoid "we" in presenting of the methodology and results. Please revise through the text. Eg. "We used Chi square and Student's T-test for statistical evaluation" should be "Chi square and Student's T-test were used for statistical evaluation".

5. The authors need to provide information about surgical procedure (open and/or laparoscopic) in methodology, with brief description of procedure.

6. Please explain in methodology that patients were divided in two groups according to the month of the appendectomy. Use formulation like: "Based on month when surgery was performed, the patients were divided into two groups: the first group included patients operated on from .... and second group....."

7. It would be nice if the authors should compare complications between two observed groups. This is also one of very important parameters that possibly may be influenced by season.
8. It is very surprising that 160 children had a preoperative CT scan. Why do you perform routinely CT scan in children? It is not a standard of treatment because in many cases diagnosis may be established by clinical examination and laboratory data and confirmed by ultrasound. This is very unusual for pediatric population that almost all children underwent unnecessary irradiation before surgery. Please explain!

9. "perf/abs" please provide full words - "perforation and or abscess"

10. Sentence "The presence of a fecalith had an association with appendiceal perf/abs (Table 4, p=0.000036)" is unclear. Should it be: "The presence of a fecalith had an association with appendiceal perforation or abscess was found (Table 4, p=0.000036)".

11. Please provide p values on 3 decimal points "p=0.161056" should be "p=0.161" or p=0.000036" should be "p<0.001". Revise through the text.

12. Presentation of the results is not well designed. Eg. "The % of AA patients with a fecalith is significantly higher in the non-summer months (55.7%) than summer (33.6%) (Table 3) because of fewer total AA patients in that period." p value is missing!

13. It is not usual to use "%" in text without numbers. Eg. "The % of AA patients" should be "The percentage of AA patients"…

14. Discussion section needs to be re-written/re-arranged. Do not present review of literature in this section. Do not discuss your findings piecemeal. Focus on results from main objectives of the study. Write in four sequential paragraphs (without headings); (i) summary (not data) of findings from present study; (ii) logical and coherent comparison with existing literature with focus of comparison on main objective(s); and (iii) Implications for practice/policy/research with a concluding statement.

15. At the end of the discussion please provide limitations of the study

16. Table 1. is not necessary and should be removed

17. Table 2. - Replace "p value" with "p"
18. Tables 3 - 5. - Please provide new column with p value and delete the text below the Tables. Only p value should be present in Table.

19. Tables 3 - 5. should be merged into one Table.

20. The quality of English should be improved! Please revise by native speaker!

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published
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