



Editorial comment on: ‘Evaluation of the Alvarado scoring system in the management of acute appendicitis’

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Dear Editor,

We read the article titled “Evaluation of the Alvarado scoring system in the management of acute appendicitis” by Özsoy et al. (1) published in 2017 issue (2017; 33(3): 200-204.) of the Turkish Journal of Surgery with great interest.

Acute appendicitis (AA) is probably the most common surgical emergency throughout the world. It is important to make an accurate diagnosis of AA in order to reduce the negative appendectomy rate. Therefore, taking a good medical history, physical examination, imaging tests and scoring systems have a great value.

Özsoy et al. (1) aimed to show the value of Alvarado Score (AS) in AA and to suggest a “management algorithm” according to AS in their study. After reviewing this paper, we would like to emphasize several issues. First of all, it is not understood whether the study design was prospective or retrospective. If this is a prospective study, it will be appropriate to define the randomization method between the groups. The authors divided patients into 3 groups according to their Alvarado score: AS 1-4 (Group 1), AS 5-7 (Group 2) and AS ≥ 8 (Group 3). However, when we reviewed the literature, we found that the groups were generally divided as AS 1-4, AS 5-6 and AS 7-10 (2). The authors should explain to readers how they have classified these patients. In addition, the reasons why 14.7% of the patients in Group 1 underwent surgery despite the literature recommendation of discharge instead of surgery for this group should be clarified by the authors (2). Although the authors’ main purpose was to suggest a “management algorithm” in light of their results, we could not find an algorithm in this paper. We believe that writing a “management algorithm” will be quite beneficial for the readers.

The efficiency of AS parameters for the diagnosis was given in Table 3. The reliability of AS in the diagnosis for AA has already been shown in various studies (2, 3). It is also controversial that only 3 of those parameters were found significant in this study. In our opinion, creating a new table comparing Group 1 with Group 3 and Group 2 with Group 3 by determining a cut-off value will contribute more to the literature than the existing table.

Furthermore, the authors recommended that imaging tests should not be used in patients with AS > 7 in the conclusion part, whereas the correlation between imaging tests and AS was not evaluated in the study and they did not even mention which imaging methods had been performed in the materials-methods section. We believe that it is crucial to explain how they have reached such a conclusion.

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Authors' reply

Dear editor,

We would like to thank the author' evaluation for the manuscript.

This is a retrospective study. The demographic and clinical findings, histopathological characteristics were all retrieved from patient's files.

There are different studies about randomization of groups in the literature (1-5). In this study, the patients were divided into 3 groups according to AS values. We used Yüksel et al. (5) recommendations since it is a recent study. In our study, the optimum cut-off value for AS in AA diagnosis was found to be 7 according to ROC curve analysis. All patients with AS of >7 was found to have histopathological appendicitis.

The negative appendectomy rate was reported as 15-30% of the patients who were operated with a diagnosis of AA (6-9).

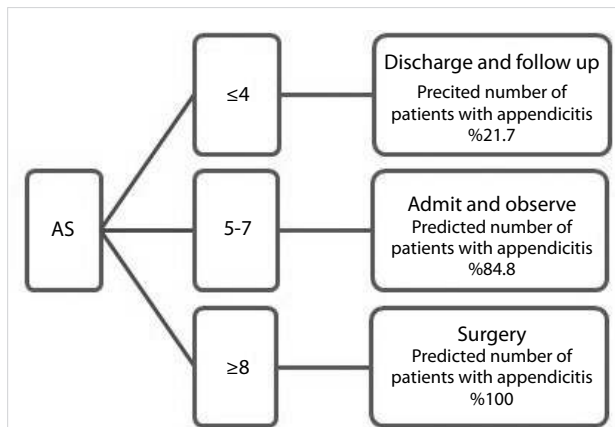


Figure 1. Clinical management strategy by the AS and probability of appendicitis

In our study, the negative appendectomy rate was 19.8%. The negative appendectomy rate was higher than the average in the groups with an AS of ≤ 4 . Based on our findings, we agree with the recommendations put forward in the literature. In short, patients with an AS of ≤ 4 can be discharged and followed-up at home after informing the patient. Patients with an AS of 5-7 should be followed-up closely by using imaging methods since they probably have AA. We think that patients with an AS of ≥ 8 can undergo an operation without imaging methods (Figure 1).

We agree with the suggestion of creating a new table comparing Group 1 with Group 3 and Group 2 with Group 3 by determining a cut-off value. However, the study is retrospective in nature. AS components were examined, but they were not effective for surgical decision making. The limitations of the study were explained in the discussion section.

Sincerely,

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