

## The Efficacy of Abdominal Ultrasonographic Examination in Preventing Negative Appendectomies

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Dear Editor,

We read the article of Akkapulu et al., titled "The Efficacy of Abdominal Ultrasonographic Examination in Preventing Negative Appendectomies," in your journal (Vol: 12, Issue: 3, pages: 118-121) delightfully. Firstly, we thank you and the authors for this interesting article. We want to discuss some important points in this study, in which the authors revealed the efficacy of ultrasound (US) in preventing negative appendectomies.

The authors stated that 93 of 352 patients were excluded and that a total of 259 patients were included in the study, but they did not give the list of exclusion criteria. Detailed numeric values of excluded patients and the reasons why they were excluded must be given in the materials and methods section for each group. Leukopenia, diagnosis of perforated appendicitis, and computed tomography were reported among the exclusion criteria. However, we do not know the exact numbers; excluding these patient groups may have affected the results of the study. Moreover, it was stated that the patients in which the appendix could not be visualized in US had been excluded. Exclusion of this group is controversial, because even in patients with acute appendicitis, the appendix can not be visualized, and this is also a finding (1).

The specificity, sensitivity, positive predictive value, and negative predictive value of US in this study were 72.9%, 41.1%, 84.3%, and 9.4%, respectively. The data given in the results section were re-evaluated according to Table 1, and the negative predictive value was calculated as 25.9% (2). The ratio of non-appendicitis patients with negative US was underestimated. US has assessed negative, and actual negative patients were given a low rate. USG has assessed the negative.

In the discussion, the authors mentioned that the frequency of US examinations was increased, especially after malpractice regulations, even in non-indicated cases. On the contrary, the study population was patients who were diagnosed with appendicitis and underwent surgery. Patients with abdominal pain that were not diagnosed with appendicitis and discharged were not included in the study. For these reasons, non-indicated US examinations should not be referred to in manuscript, and it was concluded that it would be better

**Table 1.** A 2x2 contingency table was generated according to the results of the study

		Condition (as determined by gold standard)	
		Condition Positive	Condition Negative
Test Outcome	Test Outcome Positive	True positive (TP) 108	False Positive (FP) 20
	Test Outcome Negative	False Negative (FN) 40	True Negative (TN) 14
Sensitivity= (TP / TP+FN) × 100, Specificity= (TN / FP+TN) × 100, Positive predictive value= TP / TP + FP, Negative predictive value= TN / TN+ FN			

to state the "sensitivity of US in appendectomy patients" rather than the "specificity of US." The study populations of the referred studies in the discussion are not compatible with the population of this study; therefore, the validity of the comments is considered problematic.

Thanks for this enviable study.

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