

## Comment on “While the Laparoscopic Appendectomy Is the Gold Standard in the Treatment of Acute Appendicitis, What Should Be the Preference for Closure of the Appendix Stump?”

“Akut Apandisit Tedavisinde Laparoskopik Apendektomi Altın Standart Olurken, Apendiks Kökünün Kapatılmasında Tercih Ne Olmalı?” Başlıklı Yazı Üzerine

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Dear Editor,  
I read with great interest the article “While the Laparoscopic Appendectomy Is the Gold Standard in the Treatment of Acute Appendicitis, What Should Be the Preference for Closure of the Appendix Stump?” by Yeşiltaş and Alemdar (1) published on pages 147-151 of the 24(2) issue of the Duzce Medical Journal in 2022. I am writing about a few points that stood out while reading the article. The article touches upon an extremely important clinical situation; however, the main question, the structure of the appendix stump, is not mentioned at all in the closure of that stump. Two patient groups in which intracorporeal knot and endoclip were used were compared in the study. It was not mentioned in which patients the intracorporeal knot and endoclip were preferred. The x-large of the endoclips are not sufficient to close the appendix stumps larger than approximately 10 mm, or 12-13 mm with effort, and an edematous-fragile appendix can be amputated from the stump while trying to close it, which can change the course of the surgery, suturing may not be safe in the appendix stump that remains open at the base of the cecum laparoscopically due to fragility, and I end the operation by placing sutures and omental patches (as in peptic ulcer operations) and a drain, and I recommend it. If a safe closure cannot be achieved in this way, conversion to open surgery may be required. Of course, this result can be obtained with an endoclip in broad-based fragile appendages, and it can also occur with an intracorporeal knot in fragile appendages, regardless of the appendix diameter. In the aforementioned study, conversion to open was included as one of the exclusion criteria, but if there was a case that was amputated during the stump closure and therefore had conversion, it could have been included in the complication side by mentioning the technique used during closure.

The diameter of the appendix stump was not mentioned, but the appendix features were explained in 3 categories and detailed as phlegmonous, perforated, and plastron. Of course, phlegmon and perforation are at the tip and the appendix stump may be more healthy and possibly if diffuse edema and fragility in plastron appendicitis also affected the stump, as seen in Table 2 of the mentioned article, there is a tendency to close with intracorporeal knot in plastron appendicitis (1), which brings to mind the width and fragility of the appendix diameter. Although

not significant, it is thought that the ratio will be significant in large series. In the discussion, appendix fragility and amputated stumps were mentioned, and the situation is probably already known, but it comes to mind that the details of the appendix stump cannot be given due to possible limitations in obtaining data.

In addition, if the endoclip does not fit the clip applicator properly or if it has a diameter incompatible with the appendix stump for the reason I mentioned above, we need to take out the clip that we cannot use in the abdomen. It is generally done with care from the 10 mm port used from the left quadrant of the abdomen, to reach the clip inside without accidentally locking it, and to take the clip inside without getting stuck somewhere; otherwise, complications may occur. An example of these is our case where the endoclip, which we could never find during the operation and got stuck somewhere while get it outside, was detected coincidentally just behind the port site in the left quadrant of the abdomen in an radiological imaging performed for another reason 6 months after the operation (Figure 1). Since this type of problem may occur in cases where an endoclip is used, if it is planned to remove the appendix using an endobag or another tool at the end of the surgery, I recommend removing the endoclip with the same tool (2). Another possibility is that when you leave the clip in and remove it, the omentum may come under the skin from the port site and get stuck, and a port site hernia may occur. In the aforementioned study, a port site hernia is mentioned in one case in the intracorporeal node group (1), but whether it is the camera port or the intervention port is not included in the explanations.

As a result, it may be more appropriate to recommend the use of endoclip, which was concluded to be more beneficial in the relevant study with the shorter surgery time and hospital stay, low complication rate, and ease of

application, in terms of its use under appropriate conditions, rather than associating it with the severity of appendicitis. Regardless of the severity of appendicitis, the approach that should be taken is to design it by individualizing it according to the patient (3). In the case where it is difficult to close the stump even in open surgery, and in the extremely fragile appendix with a diameter of 14 mm, I experienced that the periappendicular lymph node can serve as a patch in closing the stump, I recommend that it be considered before excision of the periappendicular lymph node, together with the effect of the luck factor in the uncomplicated course and postoperative benign result (Figure 2).



**Figure 2.** Open appendectomy case in which the periappendicular lymph node wasn't excised but used as a patch to close the stump of a 14 mm diameter extremely fragile appendix, after perioperative radiological re-interrogation that there was no suspicion of malignancy or inflammatory bowel disease

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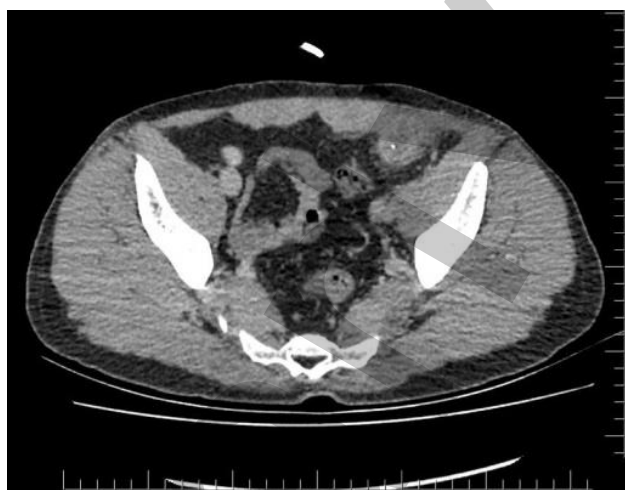
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**Figure 1.** Computed tomography section of a case in which the endoclip was detected incidentally just behind the port site in the left quadrant of the abdomen during radiological imaging performed for another reason, 6 months after the surgery, after it got stuck somewhere and could not be found while being removed during surgery