

## To clip or not to clip? Invited comment on Wilhelm et al.: Use of self-retaining barbed suture for rectal wall closure in transanal endoscopic microsurgery

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The article by Wilhelm et al. [1] presents an *ex vivo* study about two different techniques for closing the transmural defect resulting from transanal endoscopic microsurgery (TEM).

The reason for the indisputable utility of the study lies in the fact that about 5 years ago, after over two decades of limited use of TEM due to the difficulty of the technique and to the cost of the original Richard Wolf instrumentation (Richard Wolf GmbH, Knittlingen, Germany), the scientific community began to realize that the use of this platform needed to be expanded. At the same time, Karl Storz finally invested consistently in this field, promoting the technique. The technique of transanal endoscopic operation (TEO) involves simplified and less expensive instrumentation, and demonstrates once more that 3D is not as relevant in this setting as in other types of surgery. One of the problems associated with the use of TEO remains that Karl Storz does not have a dedicated clip applier to secure the thread in the TEO set.

As a result, those who still have the original TEM equipment tend to use the old Wolf clip applier with the original silver clips, while those who purchase the TEO set have to cope with this limitation of the instrumentation. A self-retained barbed suture may be an answer to this problem.

However, the conventional suturing technique involves a first stitch in the middle of the defect to bring the proximal edge and the distal edge together, along the longitudinal axis of the intestine. It may seem strange to those who do not frequently practice suturing through a rigid scope,

but if you start from a “corner,” you often get into trouble with a suture that instead of being transverse is oblique, i.e., almost stenotic. Moreover, especially under pneumorectum, the continuous suture is permanently under tension without a stitch in the middle of the defect and tissue apposition tends to remain loose. Finally, it is convenient to be able to loosen the proximal end of the continuous suture in order to better see the edges of the bowel while passing the needle to ensure a full thickness bite. The use of a self-retained barbed suture does not allow the surgeon to do this. Moreover, the original technique consists of placing a single stay suture in the middle of the gap and two continuous sutures from the two corners toward the middle, securing them with custom-made silver clips. This not only allows a proper alignment of the gap but also allows an ergonomically favorable direction of suturing. Direct experience allows me to say that it is possible with the barbed suture to practice the “standard” technique by placing the first suture in middle of the defect and using two separate continuous sutures, although this was not the technique used by the authors. Only extensive clinical experience will help us to understand whether the old and the new technique can be considered comparable.

**Conflict of interest** None.

### Reference

1. Wilhelm P, Storz P, Axt S, Falch C, Kirschniak A, Muller S (2014) Use of self-retaining barbed suture for rectal wall closure in transanal endoscopic microsurgery. *Tech Coloproctol*. doi:10.1007/s10151-014-1138-8

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