

# OTSC® Proctology for anorectal fistula treatment: analysis of 100 operations

R. L. Prosst<sup>1</sup>, A. K. Joos<sup>2</sup>

<sup>1</sup> Proctological Institute Stuttgart, Stuttgart, Germany

<sup>2</sup> End- und Dickdarm-Zentrum Mannheim, Mannheim, Germany

**Aim:** OTSC Proctology is a clip device for anorectal fistula closure. 100 operations were analyzed to assess the efficacy of this new type of minimally invasive surgery.

**Method:** OTSC Proctology was applied in patients with diverse anorectal fistulas by clip placement on the internal fistula opening using a standardized surgical technique. The surgical procedure, the direct post-operative course, and the fistula healing 6 months after the operation were assessed.

**Results:** A total of 100 OTSC Proctology procedures were performed in 96 patients. In all but 11 fistulas (8 Crohn's Disease, 3 Colitis) the fistulas were of cryptoglandular etiology. There were no major intra-operative technical problems. All patients found the postoperative pain to be tolerable with standard pain medication. The healing rate 6 months after surgery was 79% for first-line fistula therapy, 26% in recurrent fistulas, 67% in cryptoglandular fistulas, and 45% in IBD associated fistulas. The healing rates of transsphincteric (n=55), suprasphincteric (n=38), extrasphincteric (n=2) and rectovaginal fistulas (n=5) were 61%, 74%, 100%, and 20% respectively.

**Conclusion:** OTSC Proctology renders convincing results as first-line treatment for complex cryptoglandular fistulas. It is a safe, effective, and sphincter-sparing procedure with postoperative pain comparable to other types of fistula surgery.

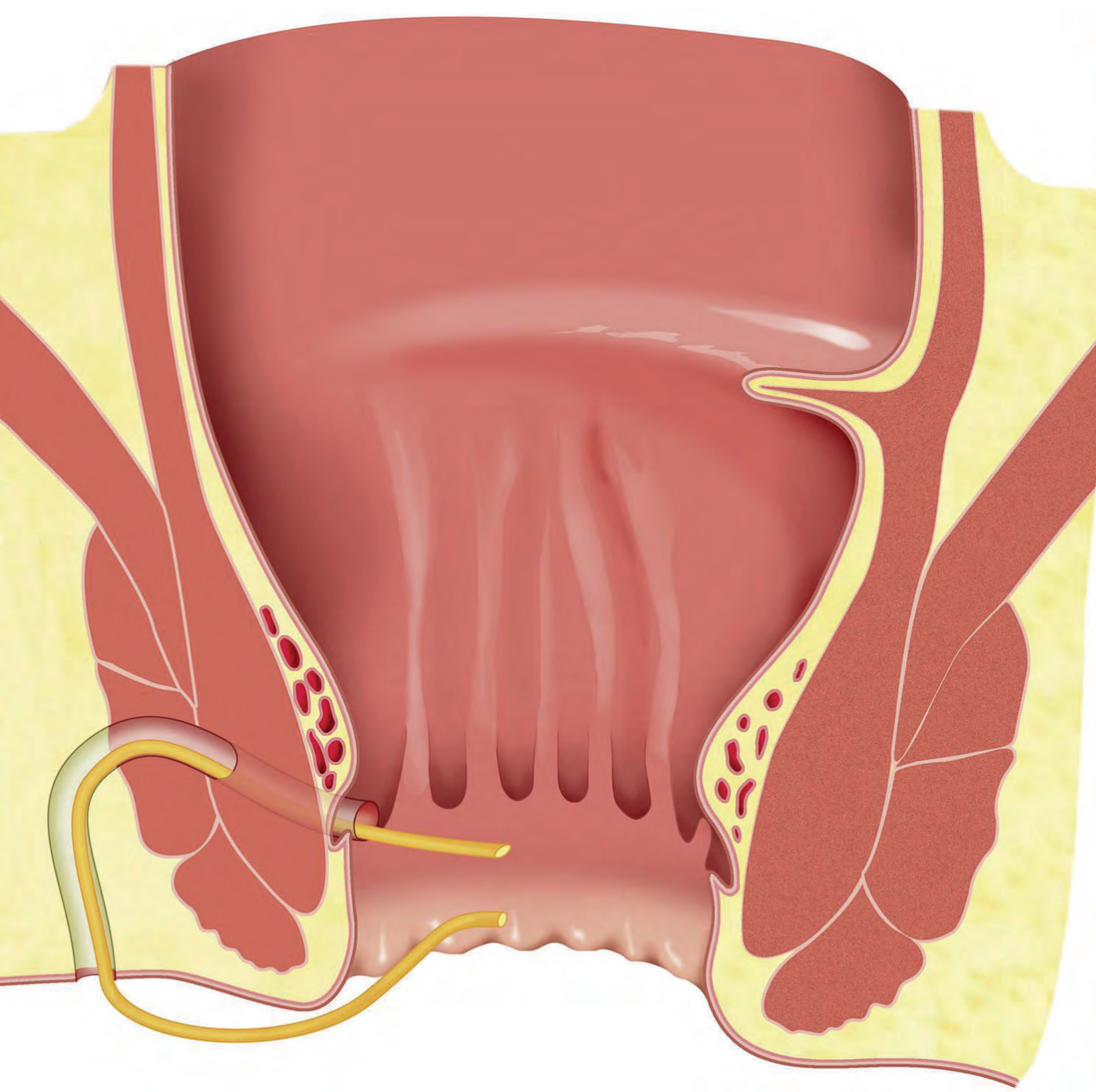


The clip of the OTSC Proctology System is 14 mm in diameter and made of a superelastic shape memory alloy (Nitinol).

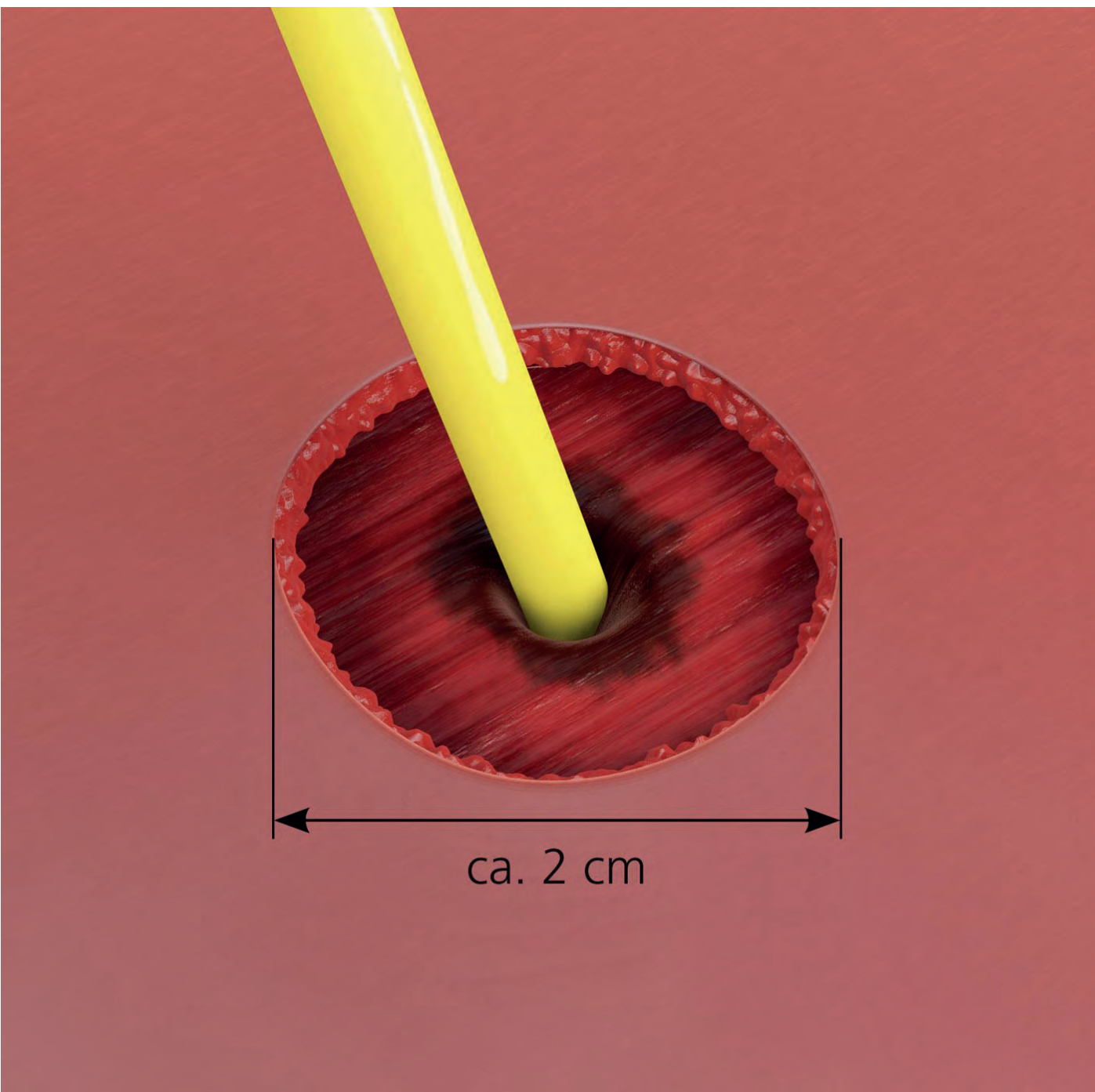
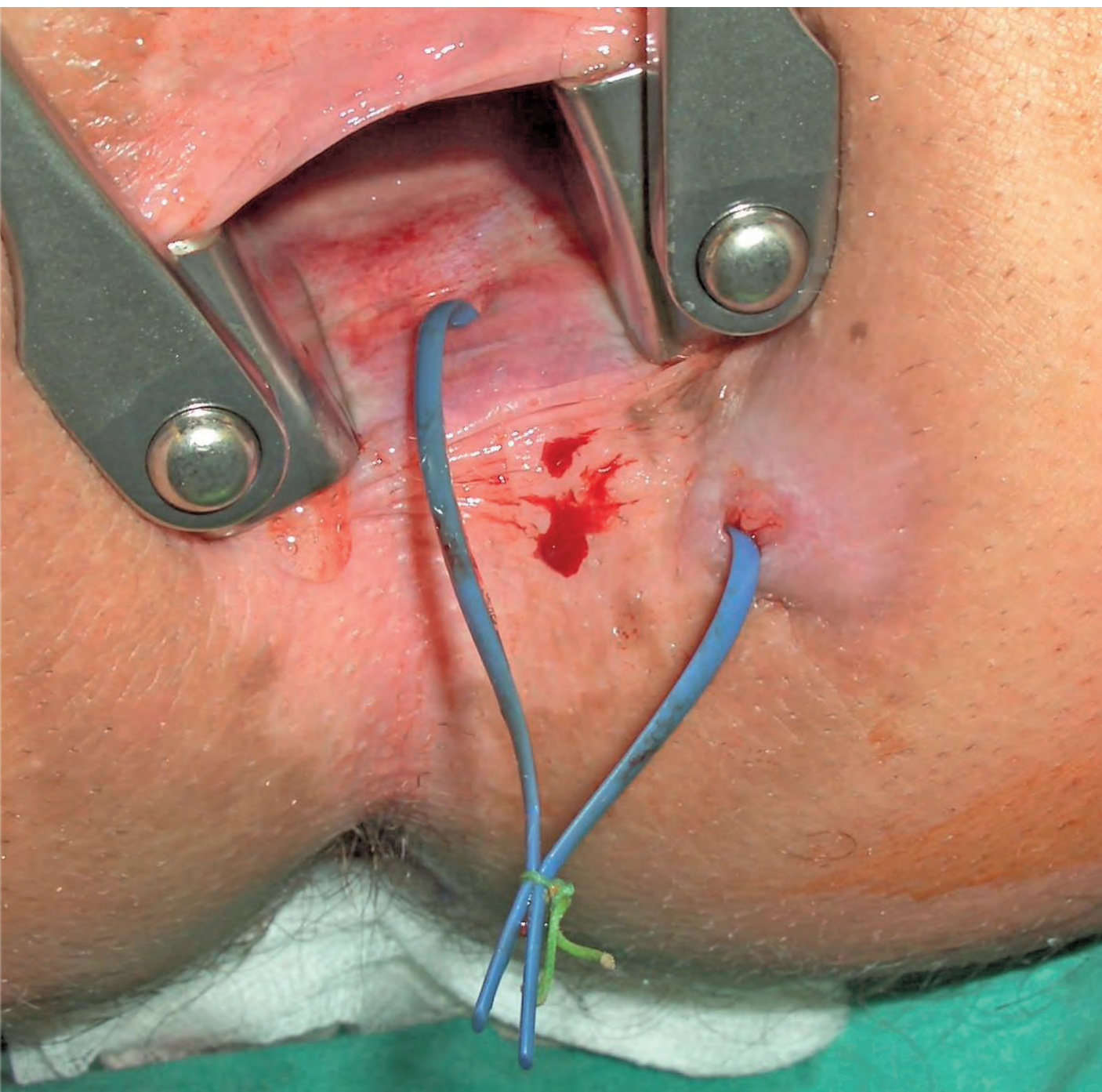


The OTSC Proctology System consists of the clip and the clip applicator. A special fistula brush and an anchor device are accessories of the OTSC Proctology System.

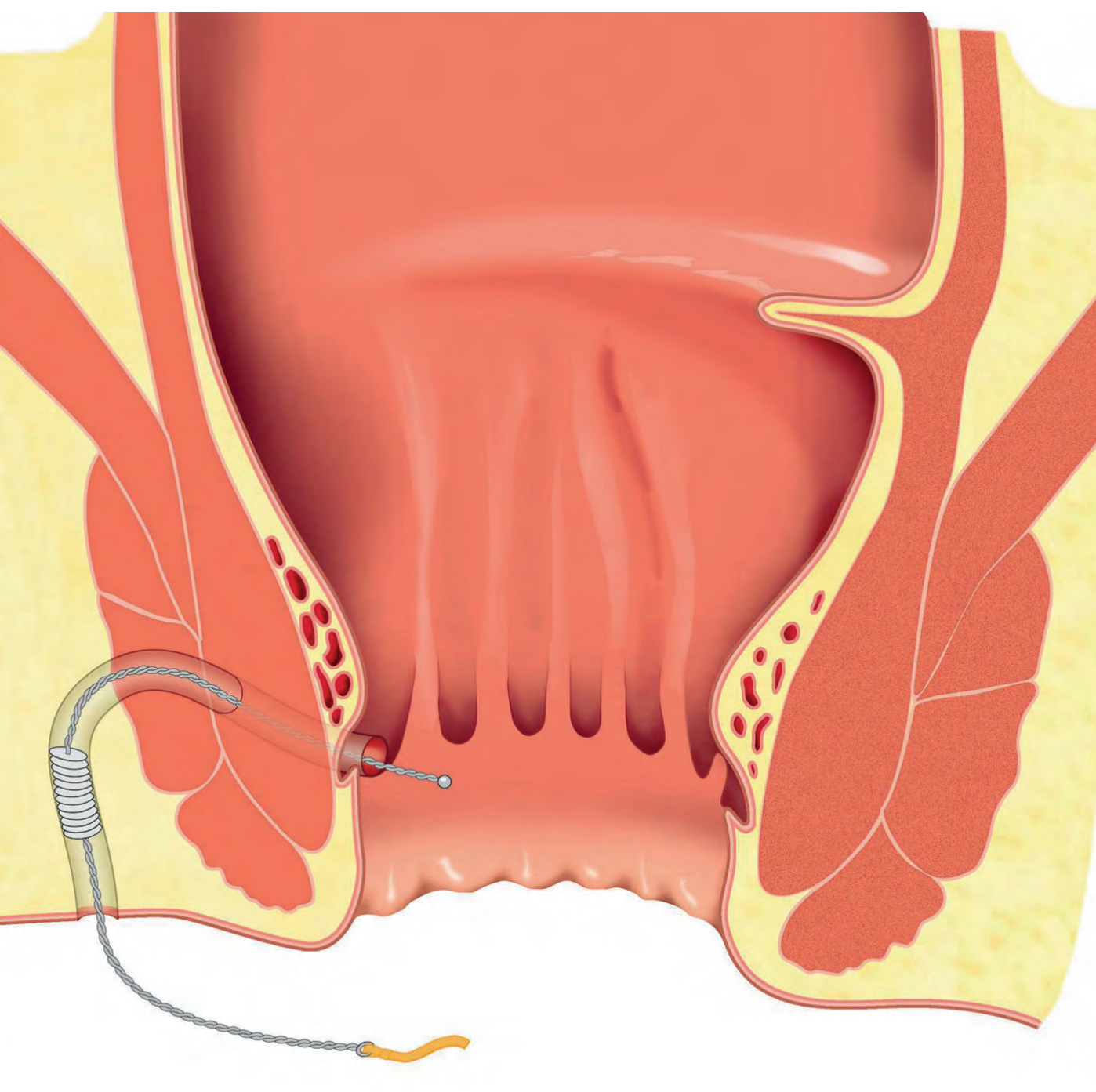
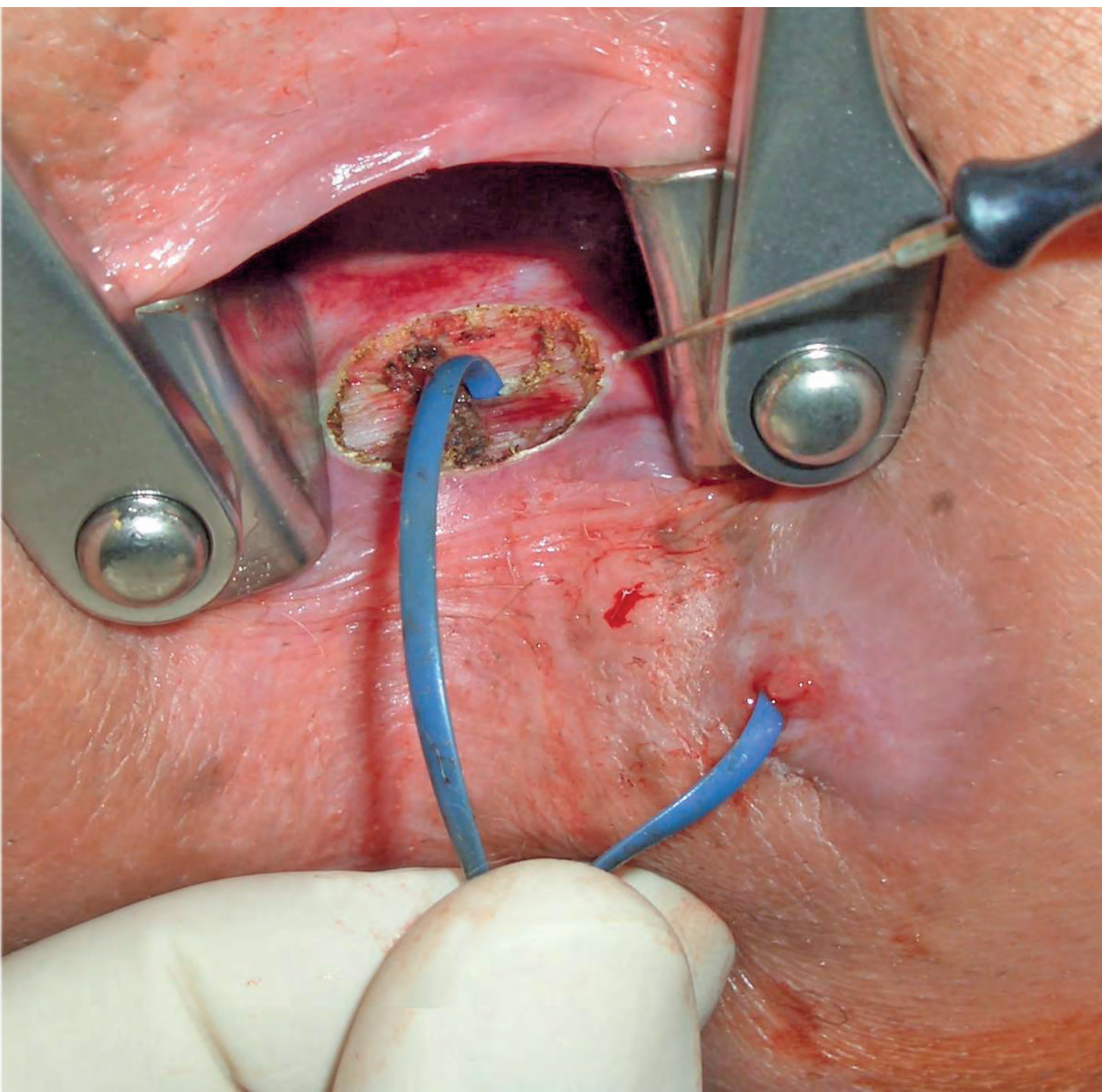
## Surgical application of the OTSC® Proctology System



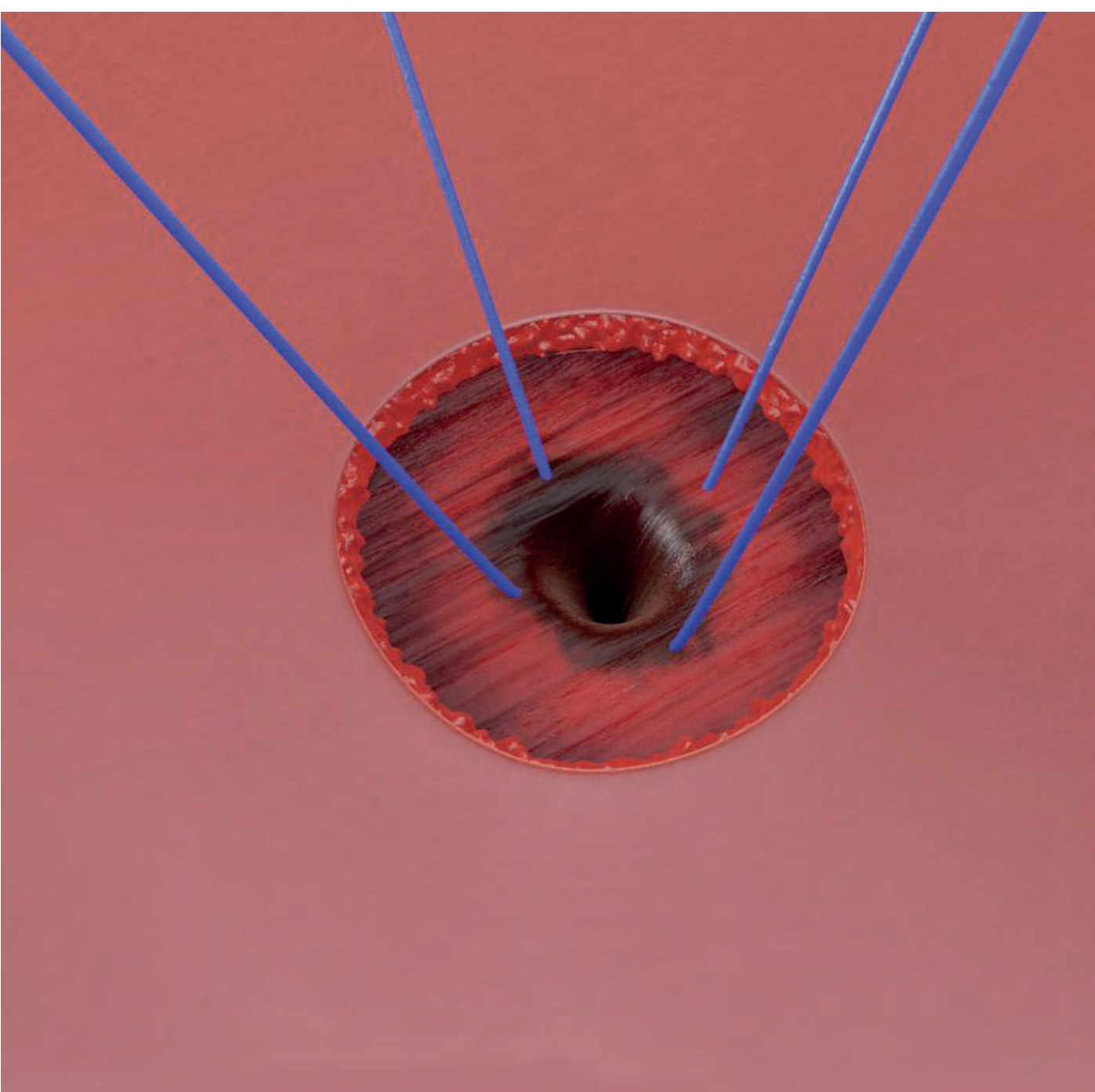
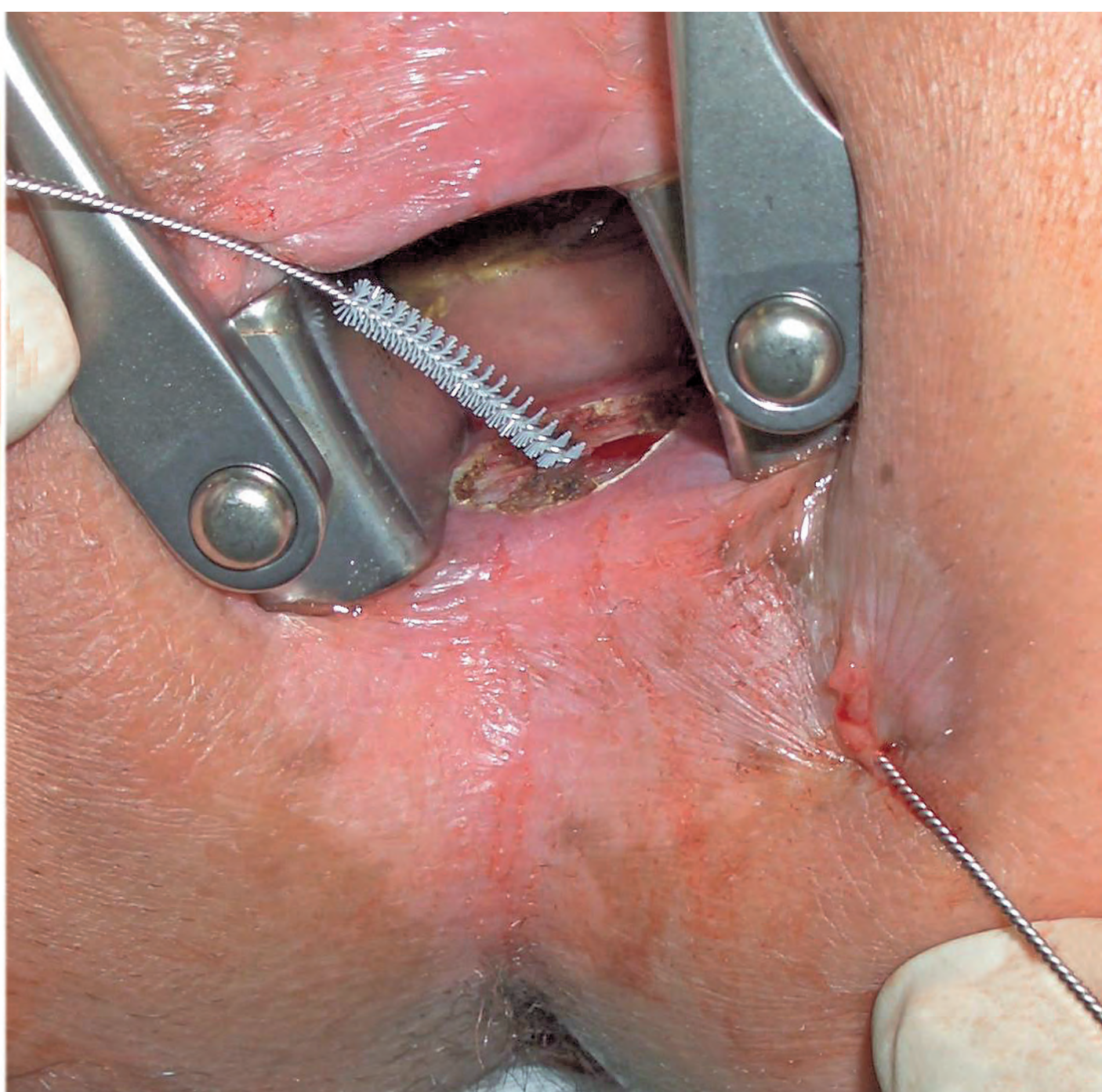
1 Preoperative situation with seton drainage of the fistula.



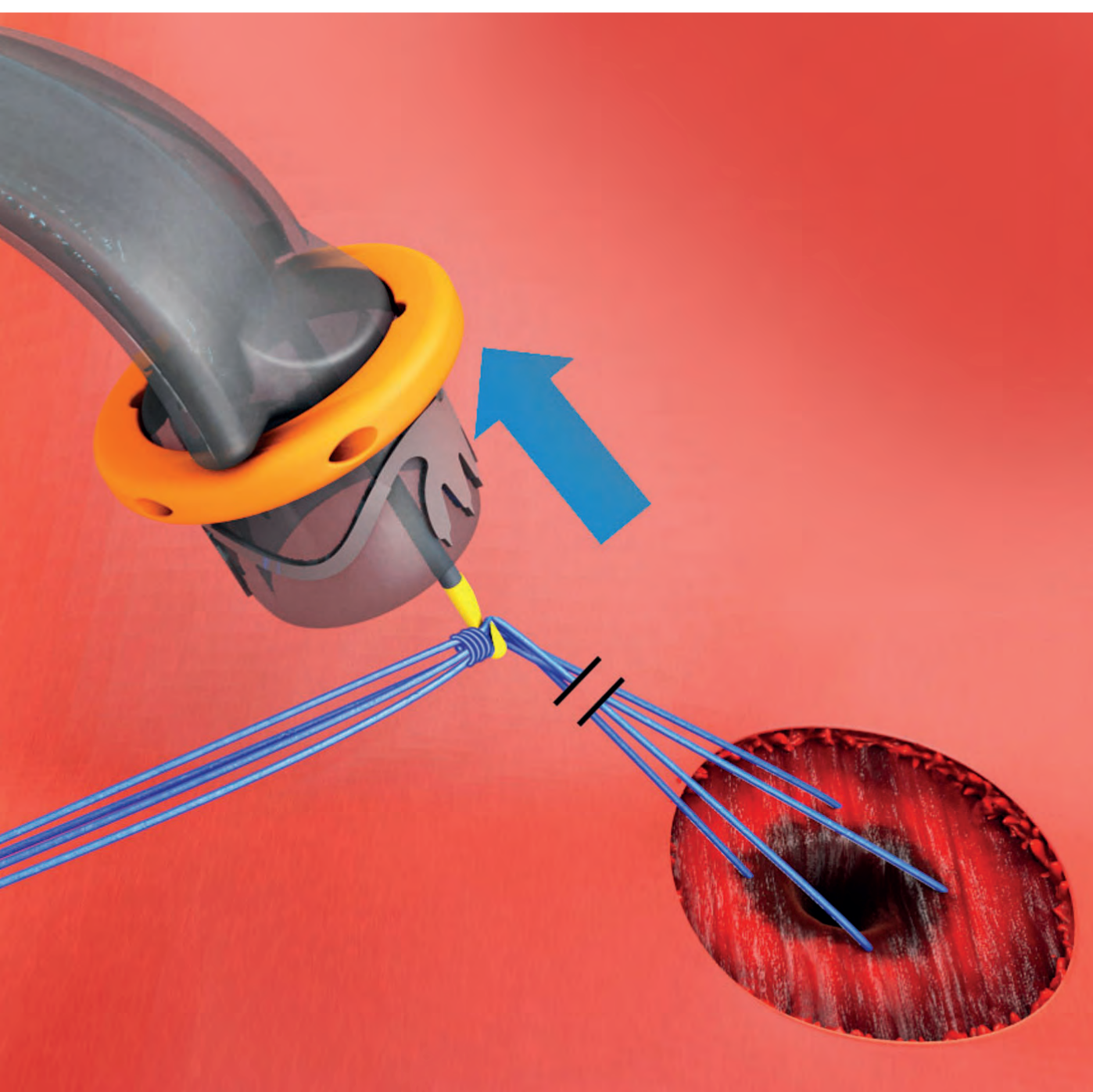
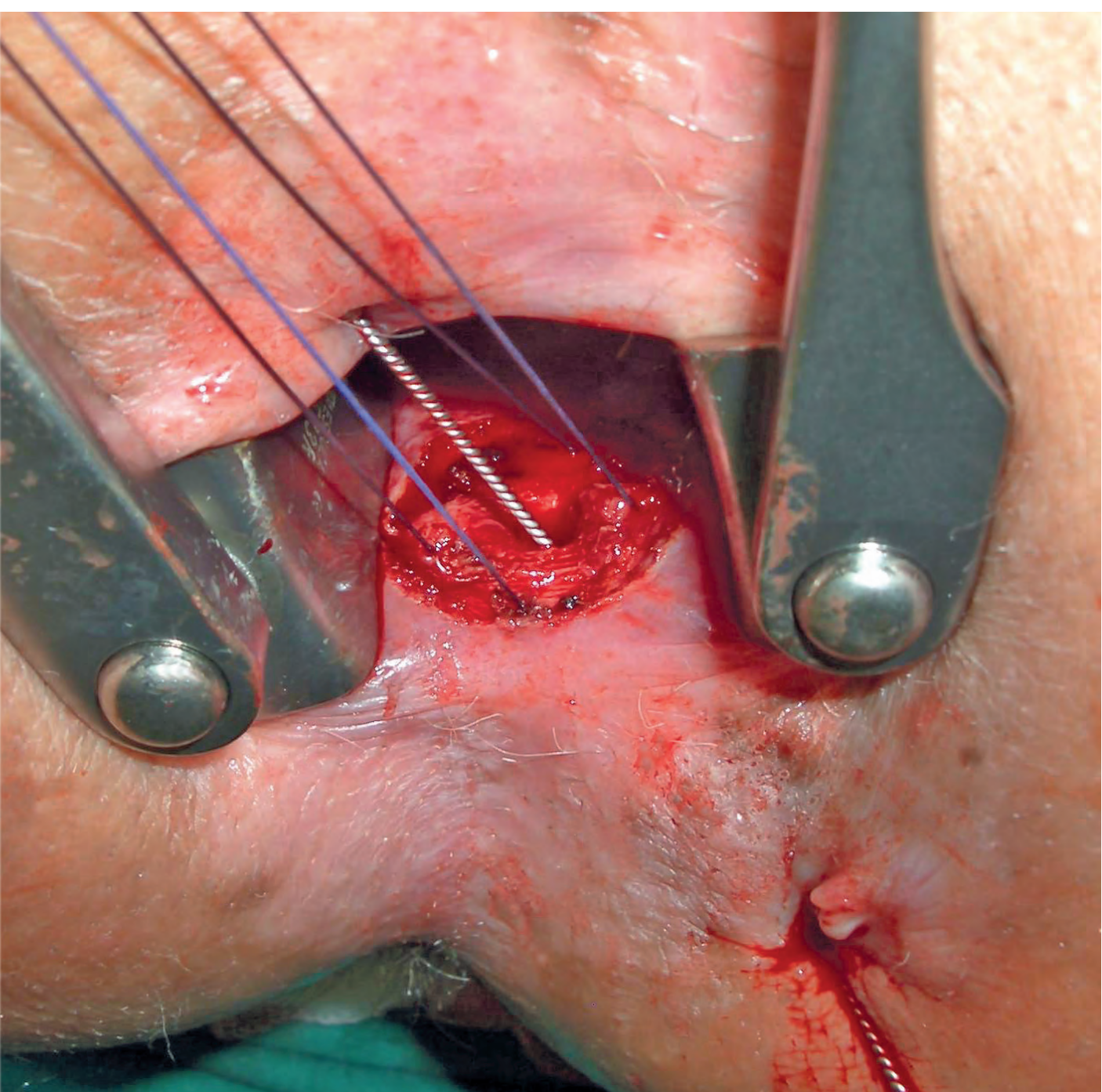
2 Circumferential excision of anoderm around the internal fistula opening is about 2 cm in diameter.



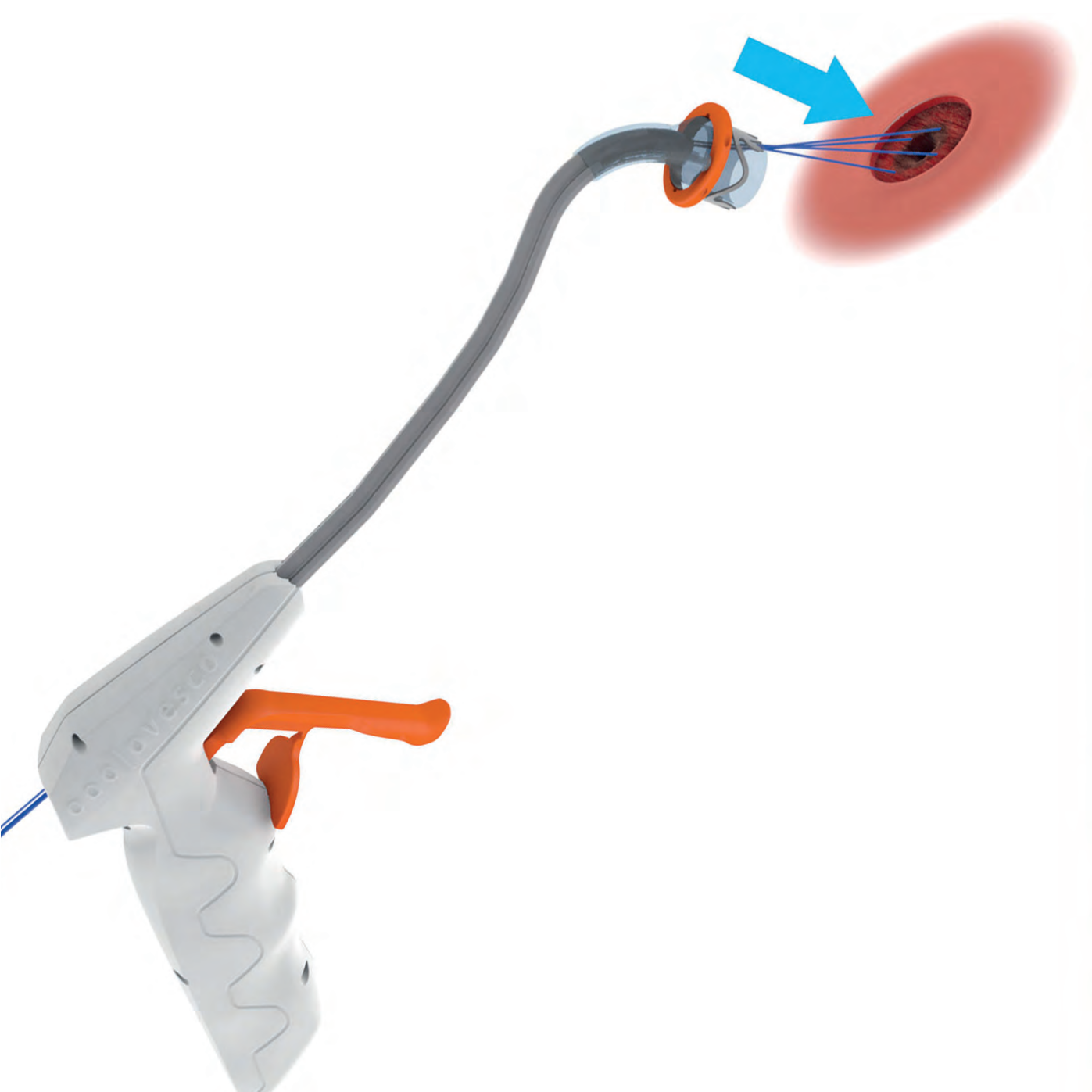
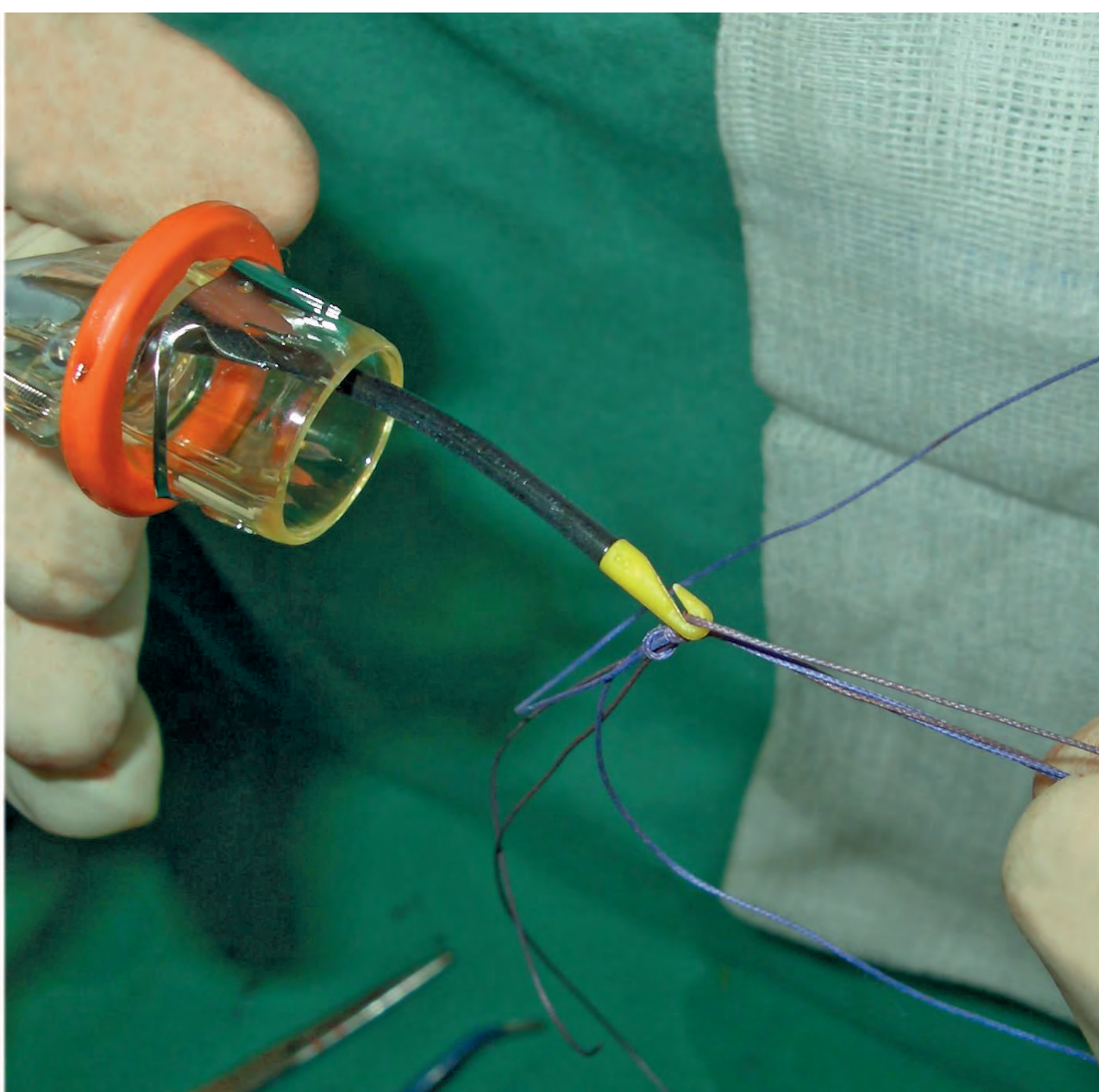
3 Debridement of the fistula tract from epithelium and granulation tissue using the special fistula brush.



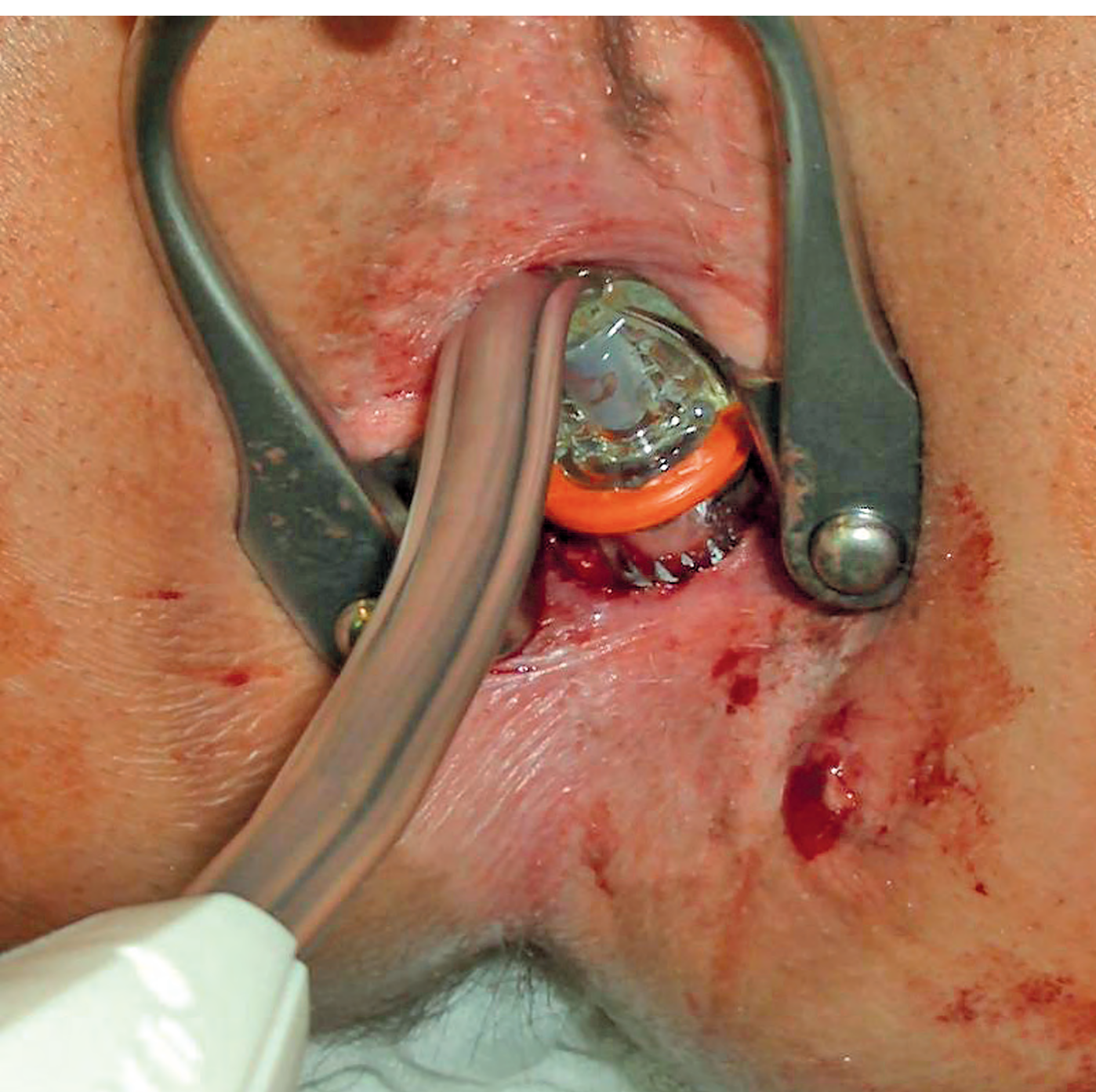
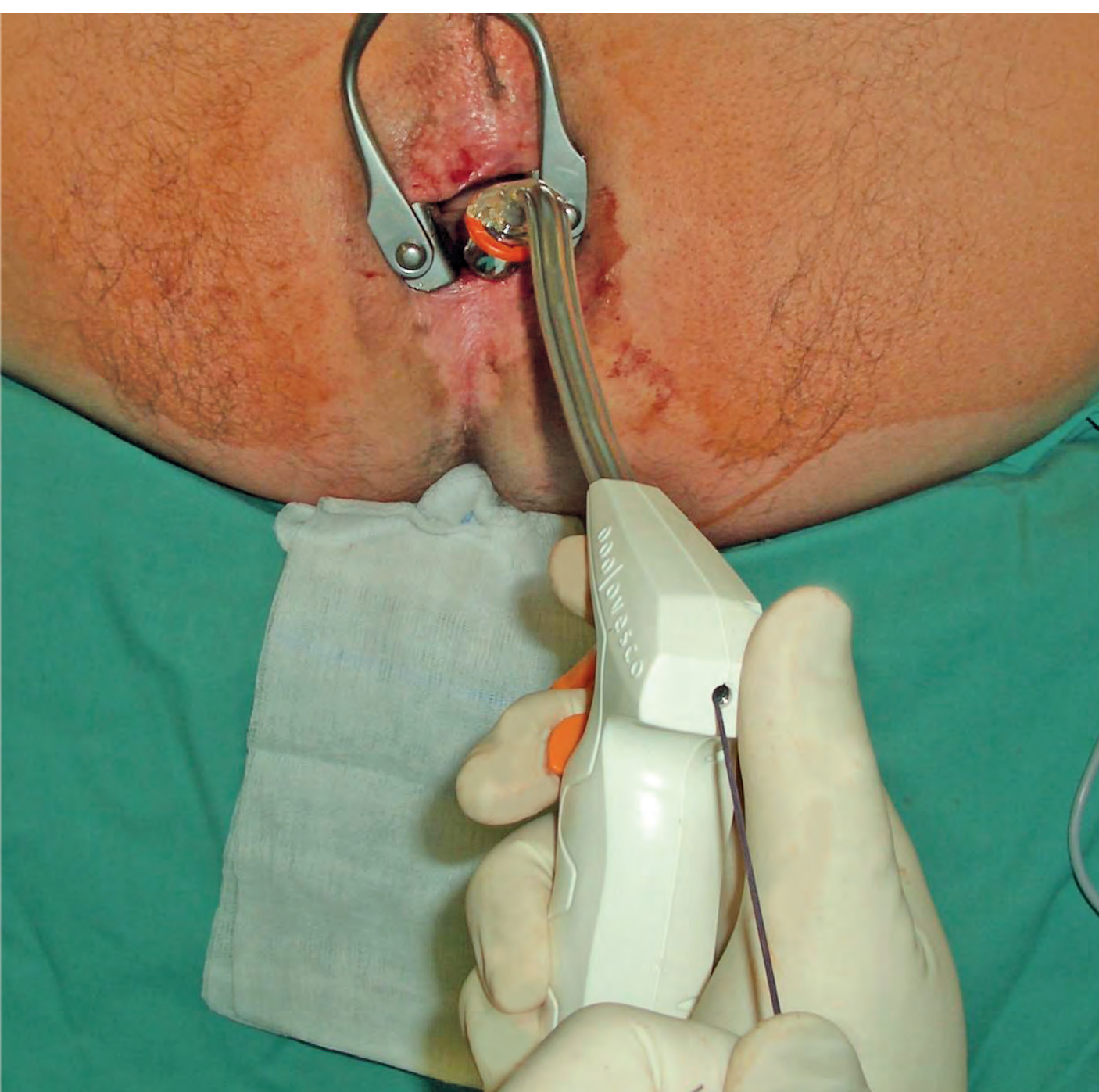
4 Placement of two U-shaped sutures in a cross-like fashion centering the internal fistula opening.



5 The sutures are knotted at their distal end and pulled through the working channel of the clip applicator using the integrated thread retriever.



6 Advancement of the clip applicator over the sutures towards the internal fistula opening.



7 Release of the clip from the applicator cap which is slightly pressed against the exposed sphincter muscle around the opening of the fistula.



8 Test for tightness of the fistula closure by irrigation from the external fistula opening. Finally, excision of the external fistula opening for sufficient drainage of the remaining fistula tract.

