

Fig. 10.1.22 Retrograde appendectomy. Alternative technique. If the tip of the appendix is adherent or otherwise inaccessible, perform the appendectomy in a retrograde fashion. Transect the appendix near its ligated base and coagulate the mesoappendix first (trocar 2). Grasp the free end of the transected appendix with a grasper (trocar 3). If a stapler is used, double staple lines, one each on the base of the appendix and on the free end of the transected appendix, provide a secure closure (see Fig. 10.1.20).

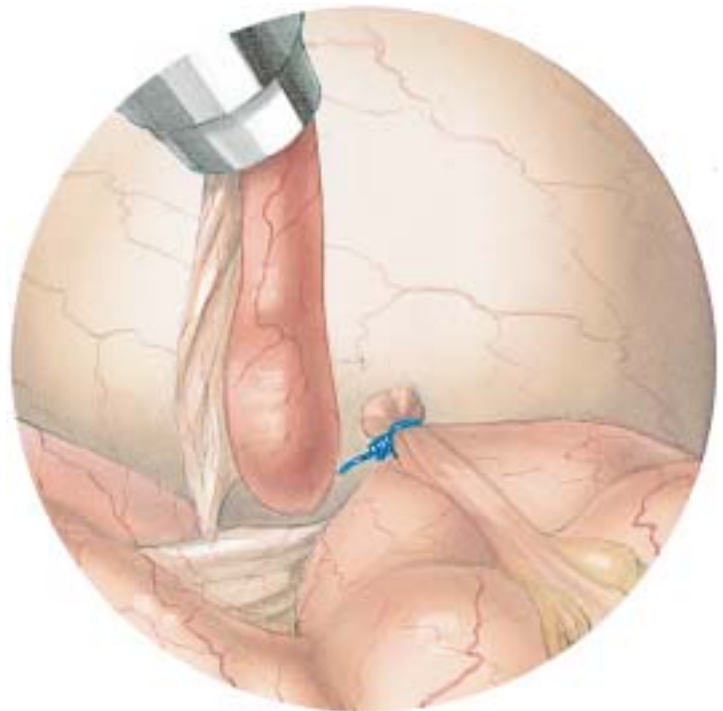


Fig. 10.1.23 Retrograde appendectomy. Alternative technique: retrieval. Pull the transected appendix base first into the retrieval tube (trocar 3). This tube must be advanced approximately 5 mm beyond the end of the trocar in the abdomen.

Caution: Avoid contaminating the end of the trocar.

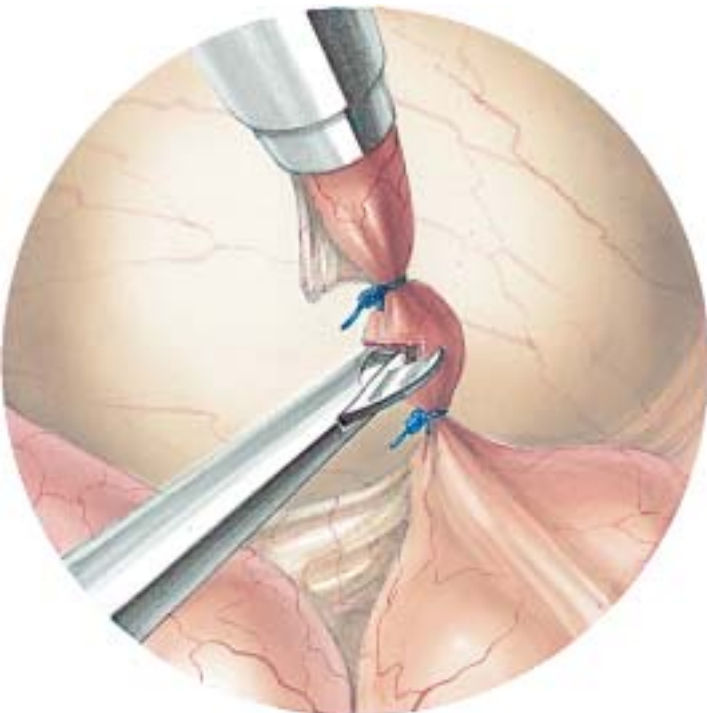


Fig. 10.1.24 Appendectomy. Alternative technique. Double-loop technique. Transecting the appendix. The double-loop technique is another alternate method of performing laparoscopic appendectomy without coagulating the base of the appendix. After placing a ligature around the base of the appendix and squeezing the lumen from the base to the tip, place a second Roeder loop and knot approximately 5–7 mm above the initial ligature. Now one can transect the appendix (scissors, trocar 2) between these two ligatures without having to coagulate it. Extract the transected appendix from the abdominal cavity through a sleeve (trocar 3), and disinfect the stump (see Fig. 10.1.17, p.).

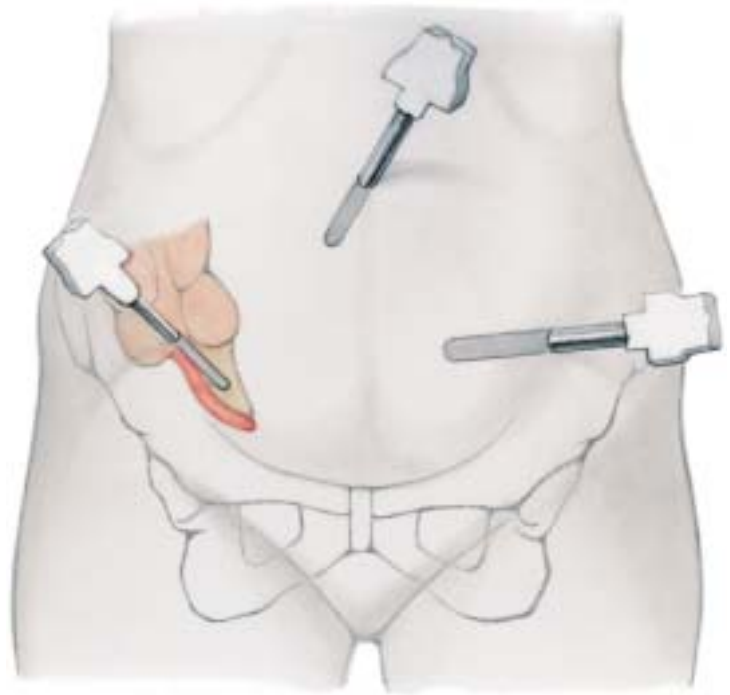


Fig. 10.1.25 Appendectomy. Alternative technique. Stapled appendectomy: trocar placement. The 12-mm trocar (trocar 2) inserted in the left lower abdomen is used for introducing the stapler and removing the appendix. The grasper for applying tension to the appendix is inserted through the 15-mm instrument sleeve in the right lower abdomen. The forward-viewing laparoscope is introduced through a 10-mm sleeve inserted in the inferior umbilical rim (trocar 1).

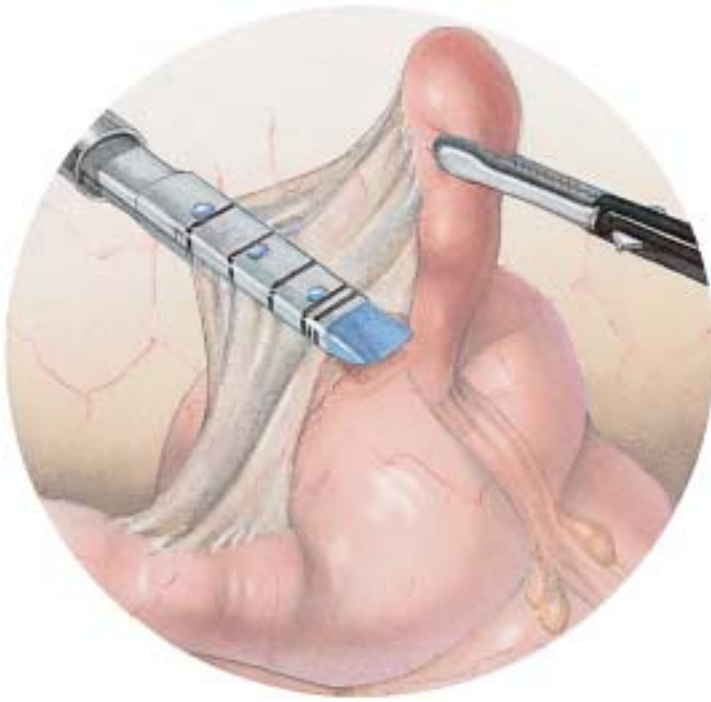


Fig. 10.1.26 Appendectomy. Alternative technique. Stapled appendectomy.
While elevating the appendix with a grasper, insert the mesoappendix near the base of the appendix into the open jaws of the stapler. Determine the proper stapler size, adapted to tissue thickness. Two applications of the stapling instrument may be necessary if the mesoappendix is too large. Note that the tissue to be transected must be placed exactly between the markings on the stapler.



Fig. 10.1.27 Appendectomy. Alternative technique. Stapled appendectomy.
After selecting the proper stapler size and cleaning the appendiceal base, place the stapler close to the cecum. After stapling, remove the stapler and retrieve the appendix through the same trocar sleeve (12 mm) using a grasper inserted through the 5-mm converter.



Fig. 10.1.28 Appendectomy. Alternative technique. Stapler appendectomy: the surgical site.
Inspect the surgical site to ensure that hemostasis has been obtained. Remove any superfluous staples from the abdominal cavity under laparoscopic control. Disinfect the stump of the appendix with a Betadine swab inserted through the left 12-mm trocar. This completes the procedure.

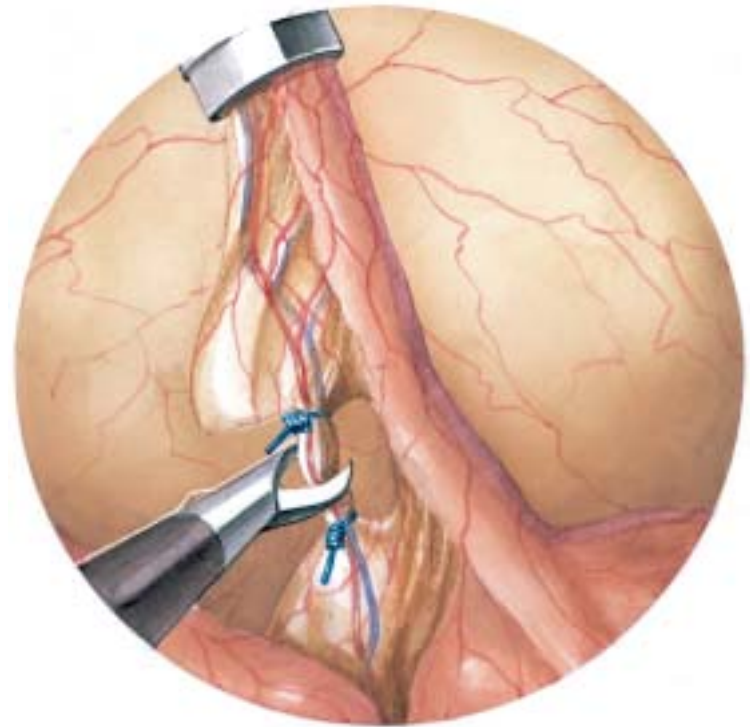


Fig. 10.1.29 Appendectomy. Alternative technique. Closure of the appendiceal artery.
The vessels of the mesoappendix can be managed securely by intra- or extracorporeally knotted ligatures. This technique is particularly useful for a fat-rich mesoappendix. Suture: resorbable polyglycolic acid 0; metris 3.5; length 90 cm.