

Combined laparoendoscopic colon resection and anastomosis using the "no touch technique" and fibrin glue. An experimental study.

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Abstract:

BACKGROUND: Laparoscopic colon anastomosis are technically demanding. A new technique for colon resection and anastomosis using a combined laparoendoscopic approach is presented.

METHODS: In 10 pigs, pneumoperitoneum was induced and 5 trocars were placed. A sigmoid segment was isolated; a vein stripper was inserted from the anus, and the head was secured with a tie; the segment was intussuscepted pulling the stripper out; 4 seromuscular sutures were placed at the anastomotic site and fibrin glue was spread all around; an electrical wire loop, introduced via a colonoscope, was used to resect the intussuscepted segment that was removed from the anus.

RESULTS: All animals but one survived until sacrifice at 30, 60, 90, and 120 days. Macroscopically, the anastomosis appeared well healed; microscopically, after 90 days, there was a complete restitutio ad integrum of the intestinal wall. **CONCLUSIONS:** This technique is feasible and quick; it could be used clinically in small tumors not removable endoscopically.