

Single-Incision Transumbilical Laparo-Endoscopic Gastric Benign Tumor Resection

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ABSTRACT

Introduction. The authors report resection of a gastric benign tumor through single-incision laparoscopy, guided by peroperative gastroscopy.

Video. A 25-year-old man consulted after diagnosis of a 40 × 20 cm² endoluminal lesion of the gastric cardia. Pre-operative work-up showed a stromal tumor with invasion of the muscular layer. The umbilical scar was incised and, after placement of a purse-string suture, an 11-mm nondisposable trocar was inserted for a 10-mm 30° angled scope. Curved and reusable instruments (Karl Storz-Endoskope, Tuttlingen, Germany) and straight ultrasonic shears (Ethicon Endosurgery, Cincinnati, OH, US) were inserted transumbilically. Peroperative gastroscopy located the lesion on the smaller gastric curvature, 1 cm from the gastroesophageal junction. A stitch was placed in the center of the lesion, and gastroscopic grasper helped in maintaining the limits of resection. Gastrotomy was closed using two converting absorbable running sutures. Because of the curves of the instruments there was no conflict between the instruments' tips inside the abdomen (Fig. 1a), or between the surgeon's hands outside the abdomen (Fig. 1b). Leak test with the gastroscope checked the integrity of the suture. The specimen was retrieved transumbilically in a plastic bag.

Results. Operative time was 150 min, and the umbilical incision was less than 15 mm. The patient was

discharged after 5 days, and he is doing well 3 months postoperatively.

Conclusions. Laparoscopic gastric resection can be safely performed through a single-access. Peroperative gastroscopy permits the limits of resection to be precisely determine, and use of curved and reusable instruments allows surgeon to achieve ergonomic conditions as in classic laparoscopy, without increasing the laparoscopic cost.

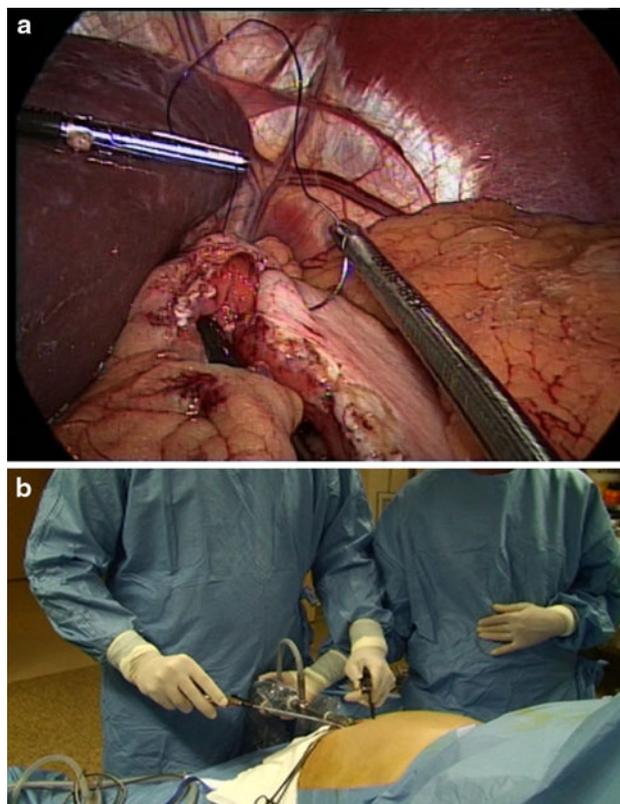


FIG. 1 Gastric wall closure by absorbable sutures, using the DAPRI grasping forceps III and the DAPRI needle holder II (Karl Storz-Endoskope, Tuttlingen, Germany)

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