Laparoscopic colorectal resection with transanal extraction. Phase II trial

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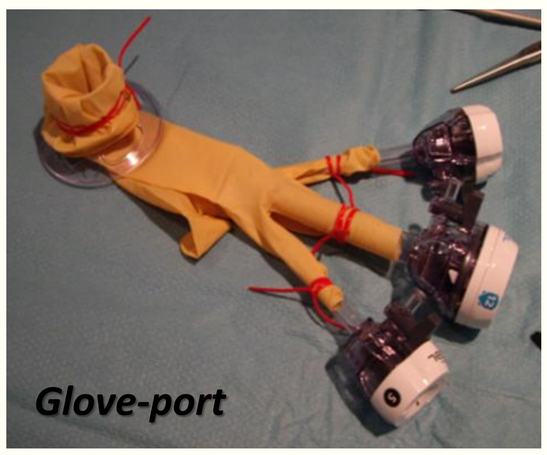
INTRODUCTION

The laparoscopic technique, what has been consolidated as boarding of choice for colorectal resections, requires a minilaparotomy for the extraction of the specimen. The incision adds pain and morbidity: wound infections and incisional hernias. A prospective descriptive analysis of laparoscopic surgical technique development for colorectal resection is presented using the rectum and/or anal canal as a way to extract the specimen

PATIENTS AND METHODS

From October 2009 to April 2014, in two teaching hospitals, 31 colorectal resections was performed by laparoscopy and specimen extraction through the rectum and/or anal canal. The patients were 19 women and 12 men, median age 63 years (range: 22-87). The estimated lesion size did not exceed 3 cm in diameter. In 12 cases some method of protecting rectal stump was used (7 cases by TEO-Storz, 5 cases with Alexis® Applied Medical and 1 case by bag device). In 8 cases transanal endoscopic resection devices were used (6 Glove-port and 2 Gel Point Path®Applied Medical).
The followings points were evaluated: Indications, type of surgery, surgical time, adequacy of the surgical specimens, patient recovery time in hospital and mortility.


Glove-port


Gel Point Path

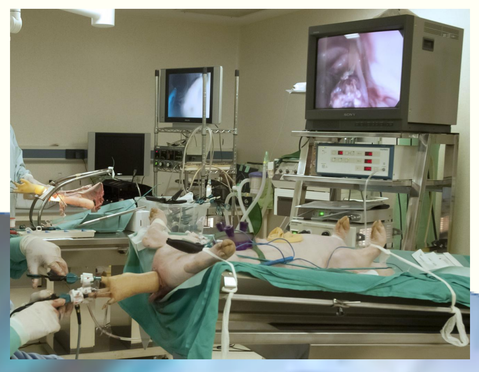
RESULTS

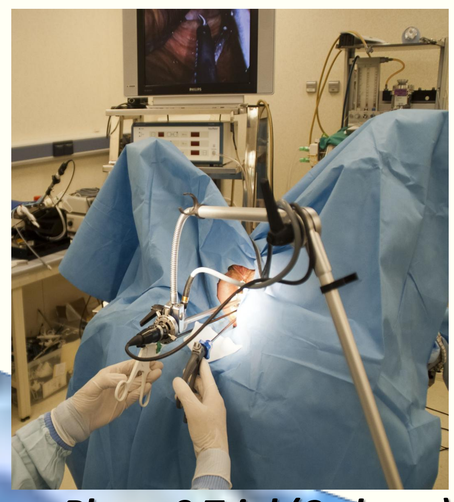
Indications	Nº
Colorectal Cancer	19
Polyps	5
Familial Adenomatous Polyposis	2
Ulcerative colitis	2
Dolicosigma-volvulus	1

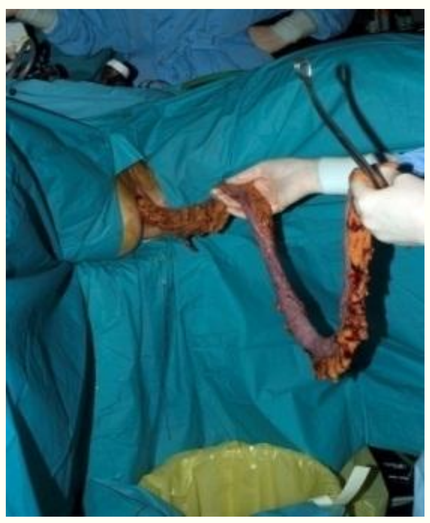
Procedure	Nº
Sigmoidectomy	10
Proctectomy	10
Anterior Resection	8
Total colectomy	3

Surgery	
Time (min.)	177 (100-360)
Conversion (%)	0

The intraoperative incidents were two openings of the rectal stump and one urethal injury, without requiring stitches. Oral tolerance and digestive transit (stool or gas) presented a median and mode of 2 days. In oncological parts the number of nodes were greater than 12 in all cases. The median postoperative hospital stay was 11 days (range 4-42). During the postoperative, one dehiscence occurred in colonoanal anastomosisl, 4 ileus and one intra-abdominal abscess what needed 2 reoperations and one transrectal drainage. In one case the distal margin was affected. Mortality: Two patients died due to SIRS and pneumonia. Only a case of colo-anal anastomosis alteration was found in sphincter function with Wexner over 10 points.


Phase 0 Trial (Animal)


Phase 0 Trial (Cadaver)


Phase IIb Trial (Patient)

CONCLUSIONS

Although experience in use of this combined laparoscopic colorectal surgery with removal of transanal specimen is still limited, our results indicate that it is a reproducible, safe and quality oncology technique in selected patients with small lesions located in left-colon and rectum.