

Laparoscopic colorectal surgery in the elderly

L. De Santis, F. Frigo

General Surgery Operative Unit, S. Lorenzo Hospital, Valdagno (VI), Italy

Abstract. Background: The efficacy and safety of laparoscopic colorectal surgery have been demonstrated in several well designed trials in recent years. At the same time the experience in the field of laparoscopy in the elderly has increased. The aim of this study was to evaluate retrospectively the experience of laparoscopic colorectal surgery in patients over 75 years in our unit. Design: Retrospective study. Setting: Surgical Department, San Lorenzo Hospital, Valdagno (VI). Subjects and methods: All the patients over 75 years, out of a total number of 121 unselected patients, undergoing laparoscopic colectomy or laparoscopic abdomino-perineal resection between June 2002 and May 2005. Main outcome measures: Postoperative mortality, operating time, conversion rate, morbidity, time of discharge from hospital. Results: Six patients were converted to open surgery. 87 patients over 75 years underwent laparoscopic colorectal surgery. There was no postoperative death, in three cases a reoperation was done, because of postoperative intestinal obstruction in one case (over 75) and for anastomotic fistula in two (one over 75, after low anterior resection). Mean operative time was 180 minutes (range 150-300). Conclusions: Laparoscopic colorectal surgery in elderly patients is a safe group of procedures for benign and malignant lesions of large bowel, resulting in a low rate of complications even if the time of operation is increased compared with open procedures. Postoperative pain and hospital stay, with return to normal life, are decreased compared with open surgery.

Key words: Laparoscopic colorectal surgery, elderly

Introduction

Several well designed trials have demonstrated the efficacy and safety of laparoscopic colorectal surgery in recent years (1, 2). At the same time the experience in the field of laparoscopy in the elderly has increased and intraoperative monitoring techniques allow an advanced control on the haemodynamic and ventilatory complications of pneumoperitoneum (3). The very definition of elderly has also changed, due to the amelioration of general health conditions of people over 65 years of age, to the point that in many studies, to find a significant difference between two groups, the threshold of age was put at 75 or 80 years (4). Laparoscopic approach was the procedure of choice in colorectal surgery in all our patients in the last three years.

Patients and methods

At the Surgical Department of S. Lorenzo Hospital in Valdagno, from June 2002 to May 2005 127 major laparoscopic colorectal operations were started. In six patients (five over 75) laparoscopy was converted to laparotomy; because of haemodynamic and ventilatory complications in three, technical and anatomic difficulties in the three.

In the remaining 121 the indications were: in 87 patients colorectal adenocarcinoma, in 12 cases polyps with displasia, not amenable to endoscopic removal, and, in 28, complicated diverticular disease. 81 patients were over 75 years of age. In two cases a total colectomy was performed (one patient, with two adenocarcinomas, was over 75 years of age), in 31 patients a right hemicolectomy (19 over 75), in 45 a left hemi-

colectomy (36 over 75), in 33 a low anterior resection (18 over 75) and in 10 patients an abdomino-perineal resection (7 over 75).

Results

There was no postoperative death. Mean operative time was 184 minutes (range 145-310). The patients were discharged on day 5 to 12 (with a mean stay of 7 days). In three cases a reoperation was necessary, because of postoperative intestinal obstruction in one case (over 75) and for anastomotic fistula in two (one over 75, after low anterior resection). The rate of severe complications was 2.9% in under 75 patients and 2.3% in over 75 and the conversion rate was 2.8 in the younger cases and 5.7% in the older ones.

Discussion

Laparoscopic surgery in the elderly was demonstrated to be safe, associated with short hospital stay and producing less morbidity and mortality, compared to open surgery (5, 6).

One of the difficulties of assessing the outcomes of surgery for colorectal cancer in elderly patients is that there is no consistent definition of the elderly patient population in published studies.

Moreover, elderly patients are a heterogeneous group. The oldest-old patients with colorectal cancer are more likely to present with later-stage disease than their younger counterparts. Elderly patients have an increased frequency of comorbid conditions such as diabetes, hypertension, pulmonary disease, and cerebrovascular disease than younger patients.

However, selected elderly patients benefit from surgery since a large proportion survive for 2 or more years, irrespective of their age (4).

Laparoscopic colorectal surgery has been showed to be safe, feasible and oncologically correct (1). Several benefits have been consistently reported, including reductions of postoperative pain, length of ileus and length of hospital stay (7). Its main limitations, at present, are the technical expertise required to the surgeon and the long learning curve (8).

In our experience the results and the rate of complications of laparoscopic colorectal surgery in elderly were comparable to conventional surgery. Its duration was longer but there were less surgical site infections and the times of return to oral feeding and discharge from the hospital were shorter.

Duration of hospital stay, which may be a surrogate for postoperative morbidity, tends to be longer for elderly patient after open surgery (4).

The results of some studies suggest that laparoscopic colorectal surgery may be particularly indicated in elderly patients (9-11).

Recovery after colonic surgery was improved considerably by combining the use of a laparoscopic technique with a multimodal rehabilitation protocol of pain relief, early mobilization and oral nutrition (12).

The outcome of major surgery in elderly patients could be similar to that in younger people if careful selection and appropriate attention to detail is exercised (13). Nevertheless, while low risk cases benefit from laparoscopic surgery, in elderly patients at very high risk, the choice of surgical procedure and approach might need to be modified. Poor risk patients may not benefit from any type of surgery, intermediate risk ones benefit from a laparoscopic approach but need an adequate haemodynamic and ventilatory monitoring and an increased and early rate of conversion to open surgery (14, 15).

Laparoscopic colorectal surgery may be a safe and effective option in elderly patients, provided that a good selection of patients, a tight intraoperative monitoring and a good postoperative rehabilitation are planned and followed.

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