



Available online at
ScienceDirect
www.sciencedirect.com

Elsevier Masson France
EM|consulte
www.em-consulte.com/en



ORIGINAL ARTICLE

Outpatient colectomy within an enhanced recovery program



B. Gignoux*, A. Pasquer, A. Vulliez, T. Lanz

General surgery unit, visceral and endocrine, Clinic Backup, Ben-Gurion avenue, 69009 Lyon, France

Available online 7 February 2015

KEYWORDS

Colectomy;
Colorectal surgery;
Outpatient surgery;
Enhanced recovery
after surgery;
Laparoscopy;
ERAS

Summary

Introduction: The application of a fast-track recovery program after surgery can decrease the physiological impact of surgery and reduce the duration of hospitalisation compared to conventional care. This program has permitted us to consider the performance of colectomy on an outpatient basis.

Method: After analyzing the recommendations for fast-track recovery, we developed and validated a specific protocol. Drawing on extensive experience in ambulatory surgery (inguinal hernia, cholecystectomy, adjustable gastric-banding), we formalized a protocol for outpatient colectomy. Patient selection criteria were the absence of serious or decompensated comorbidity, very good general condition, and full patient understanding of the procedure. Discharge was authorized if the patient met the exit criteria according to the Chung score. Postoperative surveillance was provided by regular home visits of a nurse trained in enhanced recovery, every afternoon until day 10.

Results: Five patients underwent this management strategy (4 men and 1 woman, mean age 64 years, range: 59–69), for indications including cancer of the rectosigmoid junction (1 case), sigmoid diverticulitis (3 cases), and volvulus. The postoperative course was simple and uncomplicated except for two patients who had dysuria and an incisional hematoma, respectively.

Conclusion: To our knowledge, these are the first cases of colectomy performed strictly on an outpatient basis (i.e., stay < 12 h). We demonstrated the feasibility of outpatient colectomy when integrated into a protocol of enhanced recovery for selected patients provided that at-home monitoring was available.

© 2014 Elsevier Masson SAS. All rights reserved.

Introduction

Since the work of Kehlet [1] in 1997, the principles of enhanced recovery after surgery (ERAS) or “fast-track” surgery have been the source of a second revolution in colorectal surgery, after that of laparoscopy [2]. This enhanced recovery protocol reduces the

* Corresponding author.

E-mail address: gignoux@chirurgien-digestif.com (B. Gignoux).

physiological consequences of surgery, improves postoperative recovery, reduces postoperative morbidity and shortens hospital stay [2]. The development of such a program in our centre has allowed us to gradually reduce the length of stay for colorectal surgery and to design a clinical pathway for strictly outpatient colectomy (a stay of less than 12 hours), which, to our knowledge, has not yet been reported in the literature. The purpose of this study was to evaluate the results of a preliminary study of colectomy performed on an outpatient basis.

Materials and methods

This study was carried out by a team empowered by a two-year experience with an enhanced recovery program. The ERAS protocol includes pre-, intra-, and postoperative measures [3–6] and the selection criteria for patients in this study were derived from current guidelines with input from all stakeholders (physicians, nurses, scrub nurses, physiotherapists, nutritionists, health care executives and administration). We formalized a clinical pathway protocol for laparoscopic colectomy for benign or malignant disease conducted in an outpatient setting. Certain cases were excluded: low rectal resection, right colectomy, large T4 tumours, history of perforated sigmoid diverticulitis, or previous low midline laparotomy. Patient selection criteria included the absence of serious or uncompensated comorbidity, (very?) good general condition, and full patient understanding of the procedure.

After provision of detailed information during surgical consultation with regard to anesthesia and specific management strategies for enhanced recovery with a visiting nurse, the patient gave his consent for an outpatient procedure. Pre-operatively, cancer immunonutrition was prescribed for 7 days [7,8]. We did not perform mechanical bowel preparation in accordance with the current guidelines [9,10]. The patient was admitted to the surgery at 7 am, fasting except for oral intake of 400 mL of sweetened clear liquids two hours before surgery [11–13]. Pre-operative analgesic medication (level 1 non-sedating) 1 gm of paracetamol was administered systematically. Colectomy was performed laparoscopically with infiltration of ropivacaine at the diaphragmatic domes and the minilaparotomy incisions. No nasogastric tube, urinary catheter or drains were needed postoperatively. In line with enhanced recovery recommendations, the anesthetic protocol included hyper-oxygenation (FiO₂ 80%), anesthesia agents with short duration of action, and limited intravenous fluid intake during surgery (lower total target of 6 mL/kg/h, amounting to < 1000 mL in clinical cases reported) [3,14,15]. Intra- and postoperative analgesia aimed to minimize narcotic use by employing a multimodal combination of paracetamol, nefopam, lidocaine, ketamine, magnesium sulfate, tramadol and morphine. Prevention of postoperative nausea/vomiting (PONV) consisted of intra-operative administration of droperidol and dexamethasone [16]. On return to the surgical ward, the patient had no intravenous perfusion and only oral analgesia was administered. Two hours later, the patient was encouraged to walk and food was allowed in semi-liquid form. Twelve hours after admission, the patient was discharged if he met the usual Chung score exit criteria for ambulatory surgery (Table 1) [17]. At home, the patient was encouraged to return to regular physical activity and a normal diet with nutritional supplements during the early days. Analgesia included scheduled administration of paracetamol

Table 1 Post anaesthetic discharge scoring system used by Chung. Total score is ≥ 9 considered fit for discharge.

Vital Signs (Temperature, pulse, respiration): variation between pre-operative and post-operative values	Less than 20%	2
	Between 20 and 40%	1
	Greater than 40%	0
Ambulatory status	Steady ambulation without lightheadedness	2
	Ambulation with assistance	1
	Ambulation unsteady, lightheadedness	0
Nausea and vomiting	Minimal	2
	Moderate	1
	Severe	0
Pain	Minimal	2
	Moderate	1
	Severe	0
Surgical bleeding	Minimal	2
	Moderate	1
	Severe	0

and tramadol plus nefopam per patient request for the first 24 hours. Prevention of ileus and associated PONV consisted of chewing gum and oral magnesium supplements three times daily. Thromboembolic prophylaxis included a daily injection of enoxaparin 0.4 mL SC for 10 days. Postoperative surveillance included clinical monitoring every afternoon for the first 10 days by a visiting nurse trained in ERAS as well as a telephone call by a trained nurse every morning for the first five days. This monitoring included assessment of the usual parameters (pulse, blood pressure, temperature, pain, wound dressings, food intake, intestinal transit and general condition); results were sent to the surgical team daily by e-mail. Laboratory findings were monitored on a flow sheet including electrolytes, CRP and WBC count on postop days 2, 4, and 8. The patient was seen in postoperative consultation between weeks 3 and 4 with evaluation of various measures of the ERAS program. Patient satisfaction was evaluated by a questionnaire that assessed several items (level of patient information, management of pain, the feeling of the general protocol, the organization of home monitoring and patient involvement in this program), which were rated as excellent, good, poor or very poor. This was filled out by the patient at home and delivered during the postoperative consultation.

Results

From February 2013 to May 2014, 95 patients underwent colectomy in our centre as part of an enhanced recovery program. An outpatient procedure was performed in 5 patients, 4 men and 1 woman, mean age 64 years (59–69 years). Patient characteristics are summarized in Table 2. This procedure was planned for two other cases but cancelled on the day of surgery: in one case, due to the need for a protective ileostomy and in the other because of unforeseen absence

Download English Version:

<https://daneshyari.com/en/article/6110506>

Download Persian Version:

<https://daneshyari.com/article/6110506>

[Daneshyari.com](https://daneshyari.com)