

# Post-Operative Complications of Colic and Rectal Surgery: Frequency and Management at Department of Ignace Deen's General Surgery, University Hospital Center (Chu-Ignace Deen)

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## ABSTRACT

**Introduction:** The objective was to present the results of the management of complications after colonic and rectal surgery.

**Methodology:** This was a one-year dynamic study of postoperative complications after colonic and rectal surgery. Late complications and general complications were excluded.

**Results :** We identified 31 postoperative complications in 356 colonic and rectal surgeries. There were 19 men and 12 women, with a sex ratio of 1.5. The mean patient age was 29 years, and the mean time to onset of complications was 3 days.

Preoperative pathologies leading to complications were dominated by colonic volvulus and morbid dolichocolon. Left colectomy was the main cause of complications. Infectious complications were the most common, particularly after emergency surgery. The management of these complications is complex, with significant morbidity. The postoperative course was favorable in 80% of the operated patients, with fistula complications and two deaths.

**Conclusion:** Infectious complications are common, and emergency left colectomy, performed in a peripheral area, is the most common cause of postoperative complications. Management is multidisciplinary.

## Keywords

Complication, Colon surgery, Intestinal obstruction.

## Introduction

Complications remain a frequent reason for emergency department visits. These are new pathological phenomena that generally worsen the previous situation due to their morbidity and mortality. Frequent after colon surgery, they can be serious, but they are all important for patients [1].

They include infections, anastomosis ruptures, hemorrhage, and

defecation disorders. They are serious and must be taken into account because they can quickly threaten the patient's life. Despite the use of increasingly less invasive and effective techniques, they remain a major problem in surgery and constitute a key indicator of the quality of surgical care [2].

The occurrence of early complications after laparotomy is a real health problem, although their frequency varies from one country to another worldwide [3]. The probability of postoperative complications is influenced by the type of procedure, pre-existing comorbidities, and perioperative patient management [4,5].

Intensive monitoring and the availability of modern imaging now make it possible to identify postoperative complications in time and initiate appropriate treatment. This management relies on early diagnosis and the technical platform [3].

### Methodology

This was a prospective study, conducted over a one-year period, from January 1 to December 31, 2023, in the General Surgery Department of Conakry University Hospital. All patients with a postoperative complication following colonic and rectal surgery during the study period were included. We excluded late complications and general complications. The parameters studied were sociodemographic characteristics, treatment, and outcome.

### Results

We identified 31 postoperative complications in 356 colonic and rectal surgeries. There were 19 men and 12 women, with a sex ratio of 1.5.

The mean patient age was 29 years, ranging from 9 to 72 years. The mean time to onset of the complication was 3 days in the emergency department (range 1 to 7 days).

**Table 1:** Initial pathologies causing the complication.

Initial pathology	Effective	Percentage
Colon volvulus	17	54,8
Morbid dolichocolon	7	22 ;6
Colon and rectal cancer	4	12 ;9
Strangulated rectal prolapse	1	3,2
Ileocolonic intussusception	1	3,2
Traumatic perforation of the colon	1	3,2
Total	31	100

Complications occurred in 21 cases after emergency surgery (67.7%).

The recorded cases of fistulas were due to rupture of anastomotic sutures after colectomy. In 19 cases (61.3%), the complication originated from peripheral structures.

**Table 2 :** Distribution by type of complications encountered.

Complications	Effective	Percentage
Surgical site infection	10	32,3
Stercoral fistula	8	25,8
Post-operative occlusion	5	19,1
Postoperative peritonitis	4	12,9
Evisceration	2	6,5
Anal incontinence	1	3,2
Hemoperitoneum	1	3,2
Total	31	100

Revision surgery occurred in 20 patients (64.5%).

Six fistulas were revised without complications in 5 cases. We performed two colostomies, which were restored two months later. The case of hemoperitoneum was due to impaired hemostasis during a colectomy for dolichocolon. Postoperatively, the outcome was favorable in 16 out of 20 cases (80%), and we recorded two cases of fistula and two deaths.

### Discussion

Despite the use of increasingly less invasive and more effective techniques to reduce postoperative morbidity, postoperative care remains a major problem in surgery [6]. In recent literature, 47.5% of patients develop more than one complication after surgery. In Cameroon, many studies still report a high incidence of postoperative infectious complications in referral hospitals [1]. The frequency of young adults reported in our series is mentioned by some authors in the literature [6-9]. Colectomies performed in peripheral healthcare facilities were the main source of complications in our series.

Obesity was observed in 8 patients: the larger the abdominal circumference, the higher the risk of complications.

In the study by Tonye T, et al. [6] and the one conducted by our team, half of the postoperative complications occurred before the 8th day.

Surgical site infection was the most common complication in our sample. This high rate of infections is believed to be partly related to the insufficient means of controlling nosocomial infections and the delay in referral to peripheral facilities.

Anastomotic leaks are potentially serious and may require reoperation or even the placement of a temporary stoma. They mainly occur during the first postoperative week and warrant close monitoring to detect these complications early. The fistulas we treated originated from the periphery after colectomy for obstruction and dolichocolon. Most of these complications were preventable. The skill of the surgical team and the quality of prompt management are important success factors. Literature data suggest that postoperative complications depend on the quality of perioperative management and the type of complication [2,6]. The high mortality rate observed in our study could be explained by the delay in management and the various associated injuries.

### Conclusion

The course of colonic surgery is often fraught with complications. Infectious complications are the most common, and ideally, emergency left colectomy, performed in the peripheral area, constitutes the main source of complications. Management is complex, and early and well-conducted treatment remains ideal for a better prognosis [10,11].

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