








Research Article

Surgical Management of Colon Cancer in Regular Surgery

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Abstract

Colorectal cancer is the most common form of digestive cancer. *The aim of this study was to investigate the therapeutic aspects of colon cancer. Patients and method:* This was a descriptive study with retrospective data collection, from January 2020 to June 2023 (3 years and 6 months), including all patients treated in the digestive surgery department of the Brazzaville University Hospital for colon cancer. *Results:* During the study period, 64 patients were treated for colon cancer, representing a frequency of 2.9% of all hospitalised patients. The average age of our patients was 54.8 ± 14.02 years (extremes 29 and 79 years), with a predominance of males (sex ratio 1.8). Most patients were referred to us by gastroenterologists. Cancer was diagnosed preoperatively in 20 patients. Thoracic-abdominopelvic CT scans in 82% of patients showed irregular thickening of the colonic wall. All patients underwent laparotomy. Right colectomy with tumour removal was performed in 20 patients; left colectomy in 29 patients; right colectomy combined with antrectomy with tumour removal as a single block in one patient; left colectomy combined with antrectomy and caudal pancreatectomy with tumour removal as a single block in one patient; and left segmental colectomy (sigmoidectomy) was performed in 8 patients. Lymph node dissection was satisfactory in 42 patients and inadequate in 9. The resection limits were healthy in all our patients. Post-operative management was straightforward in most patients. *Conclusion:* Colonic cancers are the most common cancers of the digestive tract. It is treated surgically. when operated on at an early stage, it improves survival.

Keywords

Cancer, Colon, CHU, Brazzaville

1. Introduction

Colon cancer is a disease characterised by an abnormal proliferation of cells in the inner lining of the colon. Its frequency and severity make it a worldwide public health problem [1]. It is less common in Black Africa than in Western countries, but its prevalence has increased in recent decades.

Colon cancer accounts for 8% of malignant tumors and 25. of digestive cancers in Cameroon [1], and 2% of all cancers and 16. of digestive tract cancers in Burkina Faso [2]. It is diagnosed clinically and confirmed by histology after digestive endoscopy. Surgery is the standard treatment for colon

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Received: 5 May 2025; Accepted: 26 May 2025; Published: 23 June 2025



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cancer [3].

Several studies carried out on this subject in Africa have focused on colorectal cancers together [4-6] and colon cancers in occlusion [7-9].

In Congo, in a study of the epidemiological, diagnostic and therapeutic aspects of colorectal cancer at the Brazzaville University Hospital, Bolenga reported 36 cases of colon cancer out of 49 CRC cases [10].

The aim of this work is to study the therapeutic aspects of colon cancers treated in controlled surgery at the Brazzaville University Hospital.

2. Patients and Method

This was a descriptive cross-sectional study with retrospective data collection that took place in the digestive surgery department of the Brazzaville University Hospital, from January 2020 to June 2023 (3 years and 6 months). All patients undergoing surgery for colon cancer were included in this study.

The parameters studied were epidemiological (age, sex), diagnostic (reason for consultation, personal and family history of tumor pathology, WHO performance status, digestive endoscopy, thoraco-abdomino-pelvic CT scan, anatomopathological, TNM stage) and therapeutic (type of surgical treatment, lymph node dissection, anatomopathological results of the surgical specimen).

The data were collected and analysed using Excel 2020 software.

3. Results

During the study period, 64 patients underwent controlled surgery for colon cancer, representing an hospital frequency of 2.9%.

The average age of our patients was 54.8 ± 14.02 years, with extremes ranging from 29 to 79 years.

There were 41 men and 23 women, with a sex ratio of 1.78.

Clinically: 4 patients had a family history of digestive cancer. Symptoms included rectal discharge (59 cases), abdominal pain (36 cases) and abdominal mass (11 cases). WHO status performs was 1 in 51 patients and 2 in 13.

All patients had undergone lower gastrointestinal endoscopy, which revealed ulceroblastic lesions in all patients (Figure 1) and the location of the lesions. Biopsies were taken in all patients.

Histological analysis of the biopsies was consistent with well-differentiated (16 cases) and moderately differentiated (4 cases) lieberkuhnian adenocarcinoma.

All patients had a CT scan (Figure 1). It was thoraco-abdominopelvic in 82% of patients and abdominal in 18%. It showed irregular thickening of the colonic wall with hepatic metastatic lesions (2 cases).

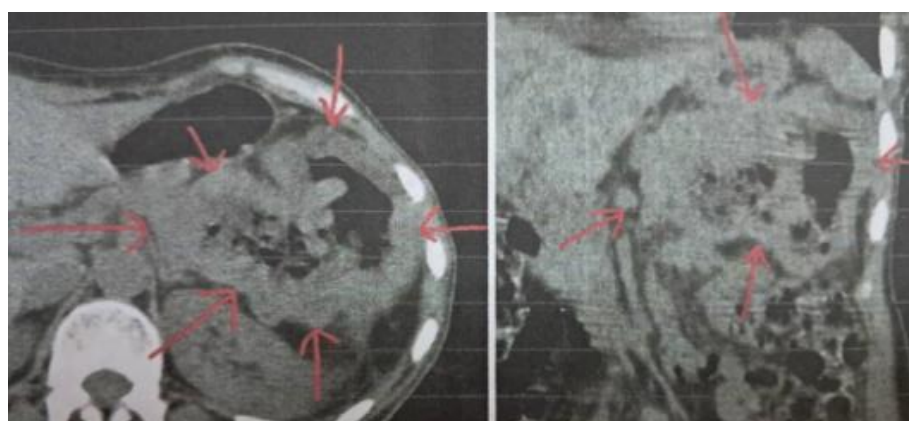


Figure 1. Scans showing parietal thickening of the colon.

In terms of treatment, all patients underwent laparotomy.

Table 1. Shows the distribution of patients according to the type of surgery.

Exploration	Headquarters		Workforce	
Tumor	Right colon		24	
	Left colon	Descending settler	12	38

Exploration	Headquarters	Workforce
	Sigmoid	24
	Right transverse vein invading the gastric antrum	1
	Transverse	
	Transverse left invading the greater gastric curve and intimate contact with the tail of the pancreas	1 2
Liver metastasis	Segment 8	2
Peritoneal carcinosis	Peritoneum and/or omentum and/or small intestine and/or colon	5
Douglas	Ascites	2

The treatment was:

1. 59 patients and the surgical procedures were

- right colectomy in 20 patients;
- left colectomy in 29 patients;
- right colectomy combined with antrectomy in one patient;

d. a left colectomy associated with an antrectomy and a caudal pancreatectomy in one patient and a left colectomy associated with an antrectomy and a caudal pancreatectomy in the other.

e. left segmental colectomy (sigmoidectomy) in 8 patients (Figure 2).

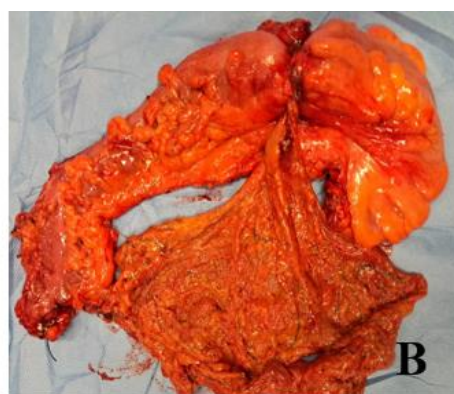
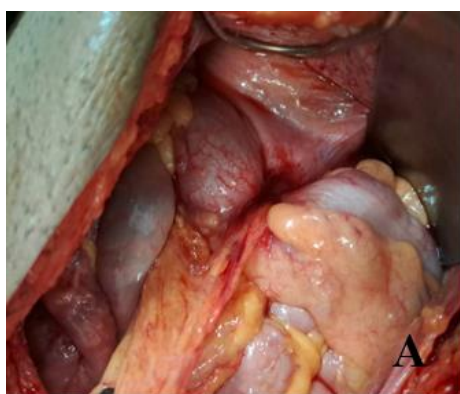


Figure 2. Images showing the sigmoid tumour intraoperatively (A) and the left colectomy specimen with the omentum removed (B).

2. Palliative in 5 patients, consisting of the creation of a proximal - upstream stoma (5 patients): a terminal ileostomy (2 cases) and a terminal colostomy (3 cases).

Post-operative management was straightforward in 50 patients, but complicated in 9 (parietal infections: 6 cases; digestive fistula treated medically with good outcome in 3 patients).

Anatomopathological examination of the surgical speci-

mens showed a well-differentiated adenocarcinoma (39 cases) and a moderately differentiated adenocarcinoma (12 cases).

Lymph node dissection was satisfactory (≥ 12 lymph nodes) in 42 patients and insufficient (< 12 lymph nodes) in 9 patients.

All patients were referred to medical oncology for further management.

Table 2. Summary table of surgical treatment for colon cancer in controlled surgery.

Exploration	Headquarters	Workforce
	Right colon	24
	Left colon	
	Descending settler	12
	Sigmoid	24
	Transverse	
	Right transverse vein invading the gastric antrum	1 2

Exploration	Headquarters	Workforce
	Transverse left invading the greater gastric curve and intimate contact with the tail of the pancreas	1
Liver metastasis	Segment 8	2
Peritoneal carcinosis	Peritoneum and/or omentum and/or small intestine and/or colon	5
Douglas	Ascites	2
Treatment		
Type	Gesture	Workforce
	Right colectomy	20
	Left colectomy	29
Curative	Right colectomy with antrectomy	1
	Left colectomy with antrectomy and caudal pancreatectomy	1
	Segmental colectomy (sigmoidectomy)	8
Palliative	Terminal ileostomy	2
	End colostomy	3
Total		64
Evolution		
Favourable	Complication	Workforce
Yes	No	50
	Yes	9
No	Wall infection	6
	Digestive fistula	3

4. Discussion

During the study period, 64 patients underwent surgery for colon cancer, representing a hospital frequency of 2.9%. Zare C and al [2] in Burkina Faso reported a frequency of 2% of all cancers and 16.2% of those of digestive tract, whereas Djapa and al [1] stated that colon cancers represented 8% of malignant tumours and 25.6% of digestive cancers in Cameroon. The average age of our patients of 54.8 ± 14.02 years is similar to that of Jean Paul Ndamba Engbang and al in Cameroon in 2018 [11] who found an average age of 52 ± 15.92 years. It is higher than those of Zare in Burkina Faso and Djapa in Cameroon who found averages ages of 49 and 40 respectively. The male predominance found in our work is similar to that reported in the literature [1, 2, 11].

Clinically, in our series, the symptoms were dominated by rectal abdominal pain (59 cases) followed by abdominal pain (36 cases). These results are identical to those of Oumarou Youssouf in CAR [4] and Diarra in Mali in 2006 [5], who reported in their work that the dominant symptoms were abdominal pain and rectal discharge [4, 5]. None of patients in

our study had a WHO performance status of 3 or 4. Ouédraogo and al. reported different results with 94.2% of patients having a WHO performance status between 3-4 [12].

As reported in the literature, a paraclinical work-up was requested in all our patients, including digestive endoscopy and abdominal CT or CAT scan [3].

In terms of treatment, surgery is the gold standard for colon cancer. Laparoscopic resection is recommended for T 1 to T 3 tumours, and remains debatable for T 4 tumours. Because of the inadequacy of the technical facilities in the Congo, no patient has been operated on laparoscopically.

The type of resection depending on the location. Colonic resection for cancer requires, on the one hand, a sufficient intestinal margin (5 cm on each side of the tumour) and, on the other hand, satisfactory vascularisation of the anastomosed colonic segments. As in the literature, our patients underwent right colectomy (20 cases), left colectomy (29 cases) and sigmoidectomy (8 cases), right and left colectomy combined with antrectomy (1 case), antrectomy and caudal pancreatectomy (1 case).

Because of the presence of peritoneal carcinosis and ascites in the Douglas dead end in 5 patients, we only performed an

offloading stoma.

Zare and al in Burkina Faso reported that haemicolectomy was the most commonly used treatment, with a resectability rate of 86.8%.

In the majority of our patients, the outcome was favourable following surgery, but complications occurred in 5 patients: parietal infection (3 cases) and medically treated digestive fistulas (2 patients). Traore and al reported that postoperative morbidity was 22% (6 patients), with complications including two parietal suppurations (2/6), three anastomotic fistulas (3/6) and one stoma necrosis (1/8) [7]. There were no cases of stoma complications in our series.

5. Conclusion

Colonic cancers are the most common cancers of digestive tract. Symptoms are dominated by rectal discharge, which in turn requires digestive endoscopy. Surgery is the standard treatment for these cancers. Progression is generally favourable after treatment.

Abbreviations

UHC	University Hospital Center
CRC	Colo rectal cancer
CT or CAT scan	computer tomography

Author Contributions

Elion Ossibi Pierlesky: Conceptualization, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Visualization, Writing – original draft, Writing – review & editing

Massamba Miabaou Didace: Supervision

Note Madzele Murielle Etienne Julie: Supervision

Bhodo Monwongui Medi: Data curation, Methodology, Software, Visualization

Tsouassa Wa Ngono Giresse Bienvenu: Data curation, Methodology, Software, Visualization

Avala Prude Pertinie: Supervision

Motoula Latou No é Henschel: Supervision

Conflicts of Interest

The authors declare no conflicts of interest.

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