Surgery

Colorectal Cancers at the Suru-Léré University Hospital Center (CHUZ-SL): *Epidemiological, Diagnostic, and Therapeutic Aspects*

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Abstract	Original Research Article

Introduction: Colorectal cancers (CRC) represent a major public health problem, particularly in developing countries, due to diagnostic delays and a steadily increasing incidence and mortality. *Objectives:* The aim of this study was to examine the epidemiological, diagnostic, and therapeutic aspects of colorectal cancers managed in the surgery department of the Suru-Léré University Hospital Center in Cotonou, Benin. *Materials and Methods:* This was a prospective descriptive and analytical study covering a one-year period from November 18, 2024, to November 18, 2025, involving 51 patients treated for CRC at the Suru-Léré University Hospital Center. *Results:* We identified 51 cases of CRC among 616 patients admitted during the study period, representing a hospital incidence of 8.28%. The average age was 65.98 years, ranging from 15 to 95 years. The large majority of patients were over 50 years old (82.35%), while 17.65% were under 50. Females predominated (54.90%), with a sex ratio (F/M) of 1.2. In 35.29% of cases, the diagnosis was made in an emergency context due to an occlusive syndrome. Lesions were more frequently located in the right colon (54.90%) versus the left colon and rectum (45.10%). Lieberkühn adenocarcinoma was the most common histological type (96.08%), followed by neuroendocrine tumors (3.92%). In most cases, the cancer was locally advanced or even metastatic, often occurring in patients with unfavorable clinical conditions and requiring adjuvant or neoadjuvant chemotherapy after surgical treatment. Limited financial resources and the high cost of treatment negatively affected the continuation of care and follow-up for many of our patients. *Conclusion:* Colorectal cancers represent a major public health problem in our setting, with a high incidence. Health insurance coverage, preventive measures, and early screening are essential to improve prognosis and reduce disease burden.
Keywords: colorectal cancers – epidemiology – diagnosis – therapeutics - CHUZ-SL.

INTRODUCTION

Colorectal cancer is the development of a malignant tumour arising from one of the layers of the colonic or rectal wall, extending from the ileocecal valve to the pectinate line [1]. It is the third most common cancer worldwide and the second leading cause of cancer-related death according to GLOBOCAN 2022 [2]. It is one of the most frequent cancers globally and can lead to serious consequences, including death. The risk of developing this cancer increases with age, with most cases occurring after 50 years (WHO, 2023). Although it predominantly affects developed countries, its incidence is rising in countries undergoing epidemiological transition [3]. In Francophone Sub-Saharan Africa, digestive cancers are the most common, with colorectal cancers accounting for 4.4%, second only to liver cancer [4]. They represent a significant financial burden for African economies. The absence of health insurance in most African countries, combined with the high cost of colorectal cancer treatment, worsens the prognosis [4]. In Benin, colorectal cancers rank third among men and fourth among women, with an incidence of 6.9% and mortality of 5.2% for both sexes [2]. This steadily increasing incidence and mortality make colorectal cancers a matter of considerable concern. The Suru-Léré Zone University Hospital Center, by virtue of its position within the health-care pyramid, constitutes the primary referral level for peripheral health centers and, given the absence of data on colorectal cancers in this intermediate-level health facility, we considered it necessary to undertake this study in order to examine the epidemiological, diagnostic, and therapeutic aspects of this disease.

MATERIALS AND METHODS

The study was carried out in the Department of Surgery of the Suru-Léré Zone University Hospital Center, a public, intermediate-level health facility with a social mandate. Its mission is to provide quality curative, preventive, and promotive care to the populations of the Cotonou II–III health district and its surroundings at reduced cost. It was designated a University Hospital in August 2014.

This was a prospective study with descriptive and analytical objectives conducted over a one-year period from 18 November 2024 to 18 November 2025, involving 51 patients managed for colorectal cancer (CRC) at the Suru-Léré Zone University Hospital Center.

The study included patients who were admitted for hospitalization and followed in outpatient consultation during the study period and in whom a diagnosis of colorectal cancer had been established.

Patients who had not undergone histopathological examination or whose medical records were incomplete were excluded from the study. The definitive diagnosis was based on the histological examination of biopsy or surgical specimens of the colonic or rectal lesion. The tumor was identified by lower gastrointestinal endoscopy, by abdominal CT scan, and/or intraoperatively. Patient confidentiality was maintained during data collection, storage, and processing.

RESULTS

Epidemiological aspects

The hospital frequency of colorectal cancer (CRC) was 8.28% (n = 51) among 616 patients admitted during the study period. The mean age was 65.98 years, with a range of 15 to 95 years. The vast majority of patients were over 50 years of age (82.35%), while patients under 50 accounted for 17.65%. CRCs were slightly more frequent in women (54.90%; n = 28), with a female-to-male sex ratio of 1.21.
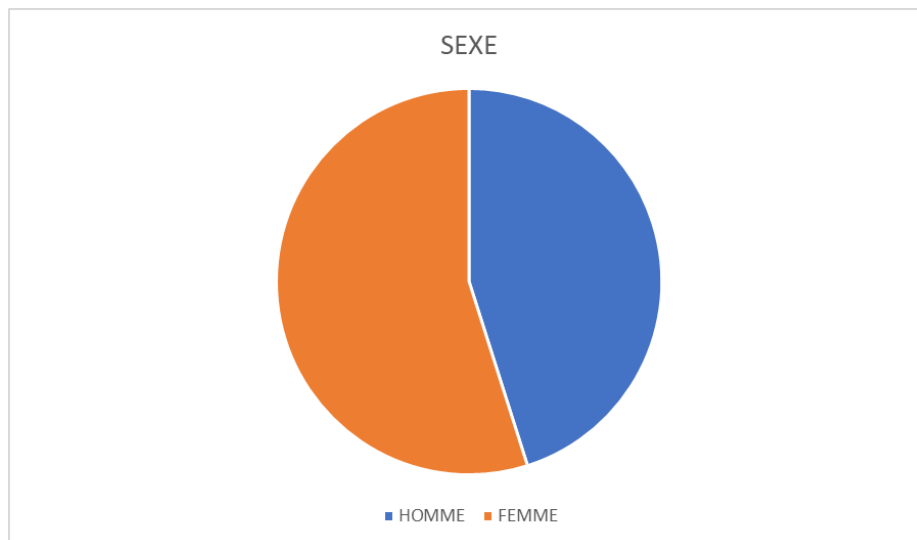

Figure 1: Distribution of patients by sex (n=51)

Diagnostic aspects

The diagnostic discovery occurred as an emergency presentation with an obstructive syndrome in 18 patients (35.29%). The majority—33 patients (64.71%)—consulted for symptoms such as chronic constipation, abdominopelvic pain, weight loss, and rectal bleeding.

Table I: Distribution of patients by diagnostic circumstance (n = 51).

	Number	Frequency (%)
Consultation	33	64,71
Emergency	18	35,29

Patient histories also indicated regular red meat consumption in all cases. 56.86% of patients reported alcohol consumption. The mean time to consultation was 6.6 ± 5 months.

64.71% of patients underwent lower gastrointestinal endoscopy in our study; for the remaining patients, the lesion was incidentally discovered intraoperatively or on abdominal CT performed in the context of a surgical emergency.

CEA and CA 19-9 tumor markers were measured in 21.56% (n = 11) of patients, with an elevation rate of 100%. The lesion predominated in the right colon in 54.90% of cases versus 45.10% in the left colon.
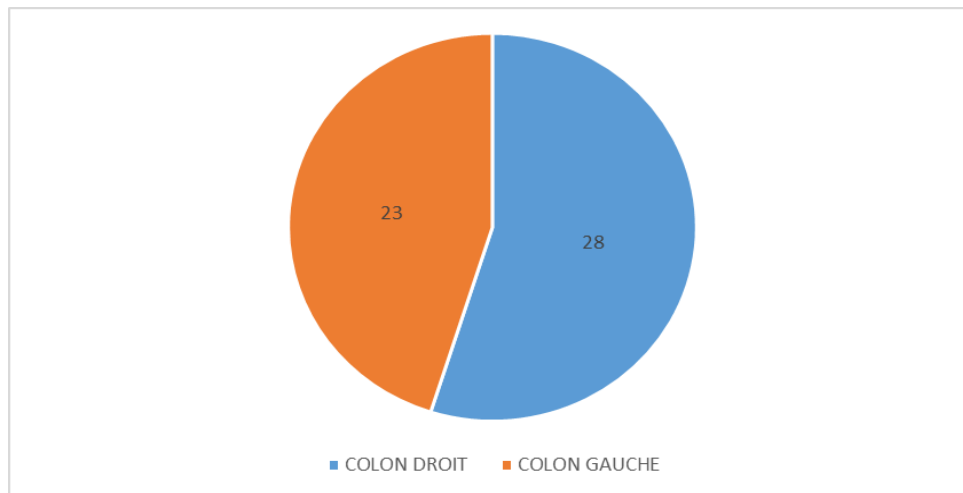
Figure 2: Distribution of patients by lesion location (n = 51).

Adenocarcinomas predominated, accounting for 96.08% of cases. Only two cases of colonic neuroendocrine tumors were identified

Table II: Distribution of patients by histological type (n=51)

	Number	Frequency (%)
ADK	49	96,08
NET	02	3,92

Therapeutic aspects

Surgery was curative and oncologic, accounting for 47.06% of all procedures performed. The surgical treatment modalities were dominated by right oncologic colectomy (50.98%), oncologic colorectal resection (31.37%), and ileocolostomy (17.64%). For patients with localized CRC (stage II and III), adjuvant chemotherapy (for 3 to 6 months) was proposed. Unfortunately, nearly all our patients—86.27%—were lost to follow-up due to insufficient financial means to cover the remainder of their care.

Table III Distribution of patients requiring adjuvant chemotherapy (n = 51)

	Number	Frequency (%)
Oui	35	68,62
Non	16	31,37

We report an in-hospital mortality rate attributable to colorectal cancer of 13.72% (n = 7).

DISCUSSION

The hospital frequency of colorectal cancer was 8.28%. This finding occurs within an epidemiological context marked by a rising incidence of colorectal cancer at both global and national levels. CHUZ-SL serves as an accessible healthcare facility. Kpossou *et al.,* in Benin and Darré *et al.,* in Togo reported frequencies of 1.4% and 2.8%, respectively. The higher rate observed in our series may be explained in particular by the position of our institution within the health-care pyramid, as a first-line referral centre for health centres, but also by environmental factors, unhealthy dietary choices, red meat consumption, and sedentary behaviour.

The mean age was 65.98 years (range, 15–95 years); patients younger than 50 years accounted for 17.65% of the cohort. This finding is comparable to reported mean ages of 69.5 years for men and 72.8 years for women [7]. Incidence increases with age in the general population, and age over 50 years constitutes a risk factor, supporting the need for screening with fecal occult blood testing from age 50. The occurrence of colorectal cancer in subjects under 50 years has been documented by several authors: Ouédraogo *et al.,* in Burkina Faso (2019) found that young subjects represented 39.2% of colorectal cancer cases, with a mean diagnostic age of 35.4 years [8], and Tohmé *et al.,* in Lebanon (2008) reported that 13.2% of their patients were younger than 45 years, with a mean age of 38 years [9]. This pattern may be explained by the important role of genetic factors and early exposure to environmental risk factors for colorectal cancer. Several retrospective studies in the literature suggest that younger age is not systematically associated with a poorer prognosis in colorectal cancer patients. The female predominance observed in our series (54.90%; sex ratio F/M = 1.21) is comparable to the results of El Housse *et al.,* (2015) in Morocco, who reported 50.75% female versus 49.2% male; however, other authors have reported a male predominance [5][11]. The most frequent clinical symptoms in our patients were constipation and abdominal pain (64.71%). These findings are similar to those reported in several other series [11, 12]. The symptoms are nonspecific and can therefore delay diagnosis: patients with rectal cancer were more likely to present with rectal bleeding, whereas those with colonic cancer more often presented with abdominal pain and chronic constipation. In some patients, in the absence of complications, the diagnosis of colorectal cancer was confirmed by colonoscopy with biopsy, as in the study by Soumaya M [13], or the diagnosis was confirmed by colonoscopy with biopsy in

all patients; this allowed precise determination of the primary tumour site. In our series we observed a predominance of right-colon locations (54.90%), followed by left-colon/rectal locations (45.10%). This distribution varies in the literature across studies, with a variable predominance of distal cancers [13, 14]. The predominance of right-sided colon cancers may be related to an increase in certain risk factors (obesity, tobacco) as well as a higher frequency of Lynch syndrome.

The mean interval between symptom onset and diagnosis was 6.6\pm 5 months. This relatively long delay is attributable to the often-nonspecific nature of early colorectal cancer symptoms and to limited financial resources, which favor diagnosis at the stage of complications such as acute intestinal obstruction and can significantly affect prognosis. Lieberkhunian adenocarcinoma accounted for 96.08% of cases; these figures are similar to those reported by Darré *et al.,*[6] in Togo and Liboko *et al.,*[11] in the Congo, who found Lieberkhunian adenocarcinoma rates of 91.2% and 87.7%, respectively.

The therapeutic strategy was defined in agreement with the patient based on recommendations issued during the multidisciplinary team meeting (MDT). Comprehensive general and psychological preparation of the patient was mandatory prior to any intervention. Curative treatment combined an oncologic tumour resection with adjuvant chemotherapy when indicated. A large number of patients were lost to follow-up due to insufficient financial means to complete postoperative treatment. The in-hospital mortality rate was 13.72% (n = 7) at the end of the study. Compared with the 53.6% mortality reported by Kpossou *et al.,*[5], the lower hospital mortality observed in our series may be explained by the small sample size and by the high proportion of patients lost to follow-up, which is related to the generally low socio-economic level of the population.

CONCLUSION

Colorectal cancers are common in our setting and present a high incidence. These findings underscore the importance of early diagnosis and of management strategies tailored to the epidemiological and histopathological characteristics of the disease. Surgery remains the cornerstone of treatment; however, management should be conducted within the framework of a multidisciplinary protocol. This study may help guide prevention, screening, and treatment strategies for colorectal cancer and paves the way for further investigations within our hospital.

Conflict of Interest
The authors declare that they have no conflicts of interest.

Author contributions
All authors contributed to the work and approved the final manuscript.

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