

Research Article

# Colorectal Cancer: Epidemiological Profile and Management at Conakry University Hospital (Guinea)

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## Abstract

**Background:** the incidence of colorectal cancer is increasing in African countries, but remains poorly elucidated. The aim of this study was to determine the epidemiological profile and the management of colorectal cancer in Conakry university hospital. **Patients and Method:** This was a 5-year retrospective descriptive study from January 2015 to December 2019 including consecutive cases of colorectal cancers recorded in the university hospital of Conakry (Guinea). **Results:** Over the 5-year period, we collected 79 cases of colorectal cancer, representing 1.75% of all digestive cancers. The 51-70 age group was the most represented (39.24%), and male patients were the most common (54%). In 38% of cases, patients were admitted with acute intestinal obstruction. Ulcerobudding tumors were dominant (88.6%). The most common histological type was Lieberkuhnian adenocarcinoma (89.62%). Postoperative course was favorable in 67% of cases. In our sample, stage IV was most represented (69%), followed by stage III (23.4%). The lack of adjuvant treatment and long term follow made very hard to determine the patient's survival time. **Conclusion:** Colorectal cancer remains a major public health problem. It is the 2nd leading cause of cancer mortality after lung cancer.

## Keywords

Colorectal Cancer, Epidemiology, Management, Guinea

## 1. Introduction

Colorectal cancer (CRC) is a major public health problem, due to its frequency and severity. Over the past 25 years, its incidence has risen, but its prognosis has improved, reflecting therapeutic advances linked to earlier diagnosis and improved surgical practices, as well as the development of adjuvant and palliative chemotherapy [1]. It is the 3rd most common cancer site and the 2nd leading cause of cancer mortality after lung cancer [2-3]. Clinical symptoms in colorectal cancer patients

are dominated by transit disorders, diarrhea and/or constipation, abdominal mass, weight loss, rectal bleeding, abdominal pain and false cravings [4-9]. Surgery is the only curative treatment for loco-regional disease, but 40-50% of patients present with recurrences and/or metastases responsible for high mortality [10, 11]. The aim of the study was to determine the epidemiological profile and management of colorectal cancer in Conakry university hospital.

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## 2. Patients and Methods

This was a five year retrospective descriptive study from January 2015 to December 2019. It involved 79 records of patients admitted for colorectal cancer during the study period. Where included all complete records of patients admitted who had surgery in the department for colorectal cancer with histological examination evidence. The variables studied were sociodemographic (gender, age, profession), clinical, therapeutic, histological and prognosis.

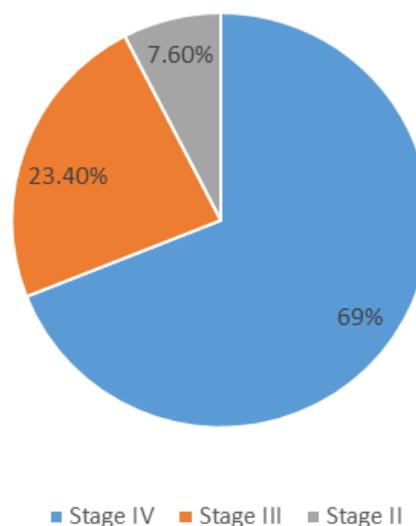
Data analysis was performed on SPSS version 12.0 software. The Chi2 statistical test was used and the value of  $p < 0.05$  was considered significant.

## 3. Results

We collected 79 colorectal cancer cases out of a total of 250 cases of patients operated on for cancer during the study period, representing a frequency of 31.6%. The mean age was 49.39 years, with extremes of 13 and 81 years, and the most affected age group was 51-70 years. The study involved 54 men and 25 women, with a sex ratio of 2.16. Housewives were most affected, (26.67%); 71% of cases lived in urban area against 29% from rural zone. Abdominal pain was most common (43.04%), followed by constipation (20.25%). The sigmoid location was the most dominant (35.6%), followed by the recto-sigmoid junction (21.6%). The most common histological type was adenocarcinoma (93.68%). Table 1 shows the surgical procedures performed. Figure 1 showed the TNM classification. Chemotherapy was performed in 29 cases: Folfox4 (n=23); Fufol (n=4); Folfox6, Xeloda and Oxaliplatin (n=2). Postoperative course was simple in 47 cases (59.7%). Mean follow-up time was  $3.8 \pm 7.6$  months, with extremes of 1 to 55 months. Overall survival was 25.3% at 12 months with 6.4% of recurrences (n=5) including 3 cases of liver metastasis, 2 case of locoregional recurrences. The liver metastatic recurrence concerned stage IV patients while the locoregional recurrences cases involved stage III. We recorded 32 cases (40.5%) of death over a follow-up period of two years. The univariate analysis showed that tumor stage was significantly associated with mortality ( $p=0.015$ ).

**Table 1.** Distribution of surgical procedures.

Surgical procedure	Number	Percentage
Left half colectomy	35	44,3
Colostomy	30	37,9
Sigmoidectomy	8	10,2
Right haft colectomy	6	7,6
Total	79	100



**Figure 1.** Distribution of tumors stages.

## 4. Discussion

We collected 79 colorectal cancer records out of a total of 250 patient records diagnosed with cancer during the study period, representing a frequency of 31, 6%; clearly higher than that of Diallo AT et al in Guinea in 2016 who found a hospital frequency of 3.21% [9]. This result can be explained by increasing number of diagnosis tools and cancer training campaign among medical practioners observed in Guinea these recent years. The 51-70 age group was the most represented with 41.8%. This result was lower than that of Djibril et al in Mali in 2010, who reported that the 20-40 age group was the most common, at 49.4% [12]. We noted a male predominance in our series similar to the findings in the literature. It could be explained by a male predisposition to digestive carcinogens such as tobacco and alcohol. Housewives were the most represented socio-professional stratum. Our study does not concur with studies conducted by Ou étraogo et al in Burkina Faso in 2019, who reported in their series that farmers were the most dominant, at 27.4% [13].

It was observed a predominance of abdominal pain (43.04%) followed by constipation (20.25%). Ou étraogo et al in Burkina Faso in 2019 found a predominance of abdominal pain (74.1%) followed by rectal discharge (38.8%). In our series, tumor resection was the most common sampling procedure, accounting for 98.74%. This result may be explained by the frequency of surgical interventions, which enabled samples to be taken from the resected segment. The colon was the most common tumor site, at 85%. Our result differed from that reported by El Housse et al in 2015 in Morocco, who had found that the most dominant localization was the rectum [14].

In this study, the most common histological type was lieberkuhnian adenocarcinoma with 89.6%. Coulibaly B et al [8] in Mali in 2012 had reported in their study that lieberkuhnian adenocarcinoma was the most encountered

with 77%. According to the results, histological type is not influenced by age, gender or ethnicity, but we did find a significant association between histological type and tumor site, such as squamous cell carcinoma and rectal location. In our series, stage IV was more represented due to the delayed diagnosis of colorectal cancers in African regions.

In the current cohort, left haft colectomy was predominant. Alvares et al in the USA in 2005 reported 61% [15]. This result may be explained by the fact that most patients did not have the means to implement appropriate therapeutic strategies. In our study, overall survival was 25.3% at 12 months. In a population based study in Malaysia, Muhamad NA found a 1 – 3 and 5 years survival rate as 68.5%, 34.7% and 18.4% respectively with a median survival time of 24 months [16]. The poor prognosis showed in this study could be explained by the delayed of diagnosis and the limitation of therapeutic tools in our practice.

## 5. Conclusion

Colorectal cancer remains a major public health problem. It is the 2nd leading cause of cancer mortality after lung cancer. The findings of this study showed a late diagnosis leading to a poor prognosis. However, it is necessary and possible to develop the most appropriate strategies for the prevention, screening and management of colorectal cancer in resources limited countries.

## Abbreviations

CRC	Colorectal Cancer
SPSS	Statistical Package for the Social Sciences
TNM	Tumor, Nodes, Metastasis
USA	United States of America

## Conflicts of Interest

The authors declare no conflicts of interest.

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