

# Colorectal Cancer in Young Patients: Experience of the Medical Oncology Department, Marrakech Military Hospital

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## Abstract

## Original Research Article

**Introduction:** The need for trace elements increases more than the dietary energy needs increase during pregnancy. Maternal undernutrition is a common public health problem and a key driver of poor perinatal outcomes in sub-Saharan Africa. The objective of this study is to determine the impact of micronutrient supplementation on preeclampsia-related morbidities during pregnancy in Kisangani. **Material and methods:** This was a double-blind, randomized controlled trial, which compared 2 regimens of supplementation in pregnant women with micronutrient deficient concentrations (calcium, selenium and zinc). The supplements were made of calcium, selenium and zinc on the one hand, and placebo supplements. Research carried out in Kisangani from 10 January 2024 to 10 October 2024. R software version 4.3.0 was used to perform all statistical analyses. **Results:** the rate of preterm delivery was higher in the control group (22.4%) than in the intervention group (8.5%) with a p-value of 0.03; the same was true for IUGR: 26.5% versus 10.6% (p-value=0.02) and gestational arterial hypertension: 30.6% versus 14.9% (p-value: 0.04). Neonatal asphyxia was more observed in the control group than in the intervention group: 28.6% versus 10.6%. **Conclusion:** Supplementation with trace elements in pregnant women with a deficiency contributes to a significant reduction in several morbidities related to the occurrence of preeclampsia, especially when it is done during pregnancy, it improves the prognosis and outcomes of pregnancy.

**Keywords:** trace element, supplementation, calcium, selenium, zinc, morbidity, pregnant, Kisangani.

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## INTRODUCTION

Colorectal cancer (CRC) is the most common digestive cancer. It is the third most common cancer in terms of frequency and the second in terms of mortality [1]. In recent years, the incidence in the young population has been constantly increasing. The average age at diagnosis is 50 to 52 years in Morocco, rarely before 50 years in the West (6% of cases) while in Morocco, 25% of patients are under 40 years in most hospital series [2]. With no recommendations focused on this category of patients, their management remains a real challenge. Our objective was to describe the clinical, therapeutic and evolutionary profile of young patients treated for colorectal cancer in our center.

## METHODS

This is a retrospective study conducted at the Medical Oncology Department of the Avicenne Military Hospital in Marrakech. The study included all patients under 50 years of age diagnosed with colorectal cancer

and followed up between January 2019 and December 2023.

## RESULTS

Among 108 patients followed for colon cancer during this period, we identified 28 patients under 50 years of age, or 25%, with a mean age at diagnosis of 32 years [22 to 47 years]. We noted a slight male predominance (n=15) and a sex ratio of 1.15. 4 patients were active smokers (14%), one was a chronic alcoholic, and 2 had a family history of colon cancer (14%). The most common symptoms found were abdominal pain (11 cases, 39%), constipation (8 cases, 28%), occlusive syndrome (6 cases, 21%), and digestive hemorrhages (3 cases, 10%). In 53.5% of cases, the cancer was located in the right colon (n=15), 39.2% in the left colon (n=11), and only 7.1% in the rectum (n=2). The most common histological type was Lieberkuhnian adenocarcinoma in 71.5% of cases, followed by mucosal colloid carcinoma in 21.4% of cases and neuroendocrine carcinoma in 7.1% of cases. At diagnosis, CA 19-9 and CEA were increased

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in 25% and 35.7% of cases, respectively. The disease was classified as stage I in 9 cases (32.2%), stage II in 5 cases (17.8%), stage III in 8 cases (28.5%) and stage IV in 6 cases (21.4%). Among the metastatic patients, 4 had liver metastases, while another 3 patients had peritoneal metastases. Adjuvant chemotherapy was recommended for only one stage II patient ( $n = 5$ ) due to prognostic factors, including T4, high preoperative CEA, with the presence of vascular embolism. All stage III patients received adjuvant chemotherapy. Five patients received 3 months of Xelox, and the remaining 3 patients received

6 months of Folfox. Of the 6 metastatic patients, two had wild-type RAS and BRAF status. 4 patients were treated with a chemotherapy-bevacizumab combination, one patient with a chemotherapy-cetuximab combination, and only one patient received hyperthermic intraperitoneal chemotherapy. After a follow-up period of 36 months, the relapse rate in patients with localized stages ( $n = 22$ ) was 9 % (2 patients relapsed in the liver). For metastatic patients, the median progression-free survival was 25 months, with only one death occurring.

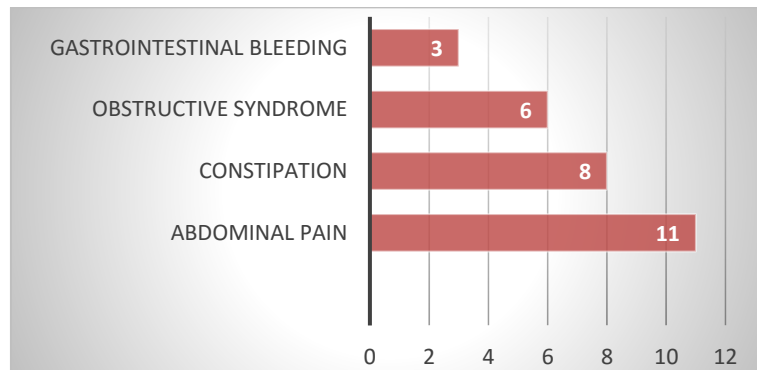


Figure 1: Distribution of disease symptoms (n=28)

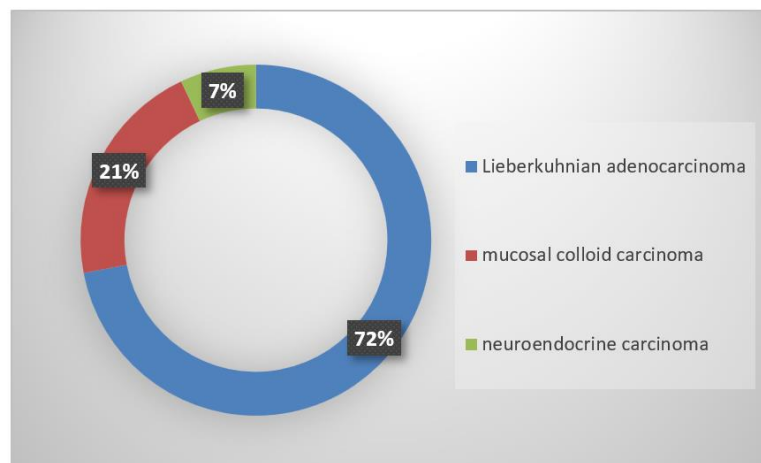


Figure 2: distribution according to histological type (n=28)

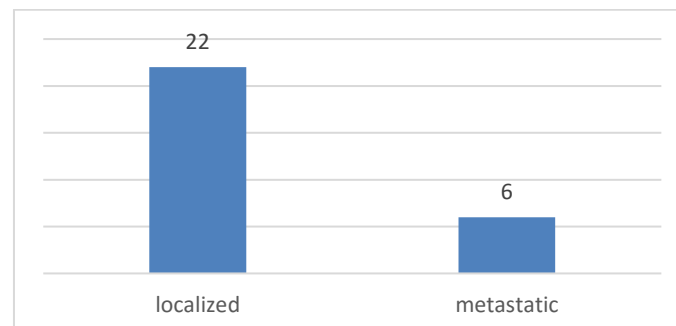


Figure 3: Distribution of patients according to stage of diseases (n=28)

## DISCUSSION

Colorectal cancer is considered the most common digestive cancer in terms of incidence [3]. The

median age of onset of colorectal cancer is 74 years, with more than 94% of cases observed after the age of 50 years [4]. The proportion of this disease before the age of 50 years is estimated at 6% [4]; however, recent

studies have noted a worrying increase in this proportion, which has now reached 20% [5]. In our series, the proportion was higher (25%).

The mean age in our series was 32 years, which is generally consistent with the literature data, which varies between 31 and 40 years [4-6]. In young patients with colorectal cancer, a male predominance has been reported by several series [7, 8].

Regarding the most described symptoms of revelation, we note rectal bleeding in around 40%, abdominal pain in 25 to 35% and transit disorders in 24% [8-11].

Several series and studies have reported that colorectal cancer in the young population is preferentially located in the left colon, which explains the aggressiveness of these cancers in this young population [6,8]. Contrary to the results observed in our series and that of Pocard *et al.*, who report that the right colon is the most frequent location [7].

The most frequent histological type was adenocarcinoma in 71.5%, this result was similar to that of Ouedraogo S *et al.*, who reported 88.7% [6]. In our study, the advanced stage (stage 3 or 4) represents 50% of patients at the time of diagnosis; the high frequency of aggressive forms in young subjects makes this cancer a condition with a poorer prognosis, as reported in previous studies [6, 10].

In young people, the late discovery could be linked to the fact that the diagnosis is not often considered as a first step, given the relative rarity of the pathology in this population. Unfortunately, the diagnosis is often only considered when there are obvious signs, which often correspond to an advanced stage. It would be necessary to include this population in systematic screening as planned for elderly people [6].

For localized stages, the recurrence rate in our series was 9%, results close to those reported by Soualili *et al.*, who found 11.1% [12].

For metastatic stages, the median progression-free survival was 25 months longer than that of the elderly population reported by Bourgeois *et al.*, [13].

## CONCLUSION

Colorectal cancer in young people is characterized by an aggressive profile, with symptoms that do not differ from those of older people. This aggressive profile of the disease in such a young group of patients requires increasing attention to improve their prognosis and treatment, particularly in the search for familial forms in the presence of predisposing

antecedents. Emphasis should also be placed on the development of cancer units capable of treating these patients as a whole.

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