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Surgical Treatment of Rectal Cancer in Brazzaville

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Abstract **Original Research Article**

Objective: To study the therapeutic aspects of rectal cancer (RC) at the Brazzaville University Hospital. ***Patients and method:*** This was a descriptive study with prospective data collection from January 2020 to June 2023. All patients followed and/or operated on for rectal cancer were included. ***Results:*** Of 2758 patients operated on during the study period, 112 were operated on for colorectal cancer, representing a hospital frequency of 4.06%. The number of patients operated on for CRC was 32, i.e. a frequency of 1.16%. The average age of patients was 56.5 ± 12.23 years, with extremes of 36 and 77 years. CR affected 17 men and 15 women, giving a *sex ratio of 1.13*. The procedures performed in these patients were: a near upstream colostomy (n=23; 72.2%), an abdominoperineal amputation (n=6; 18.8%) and an anterior resection of the rectum (n=3; 9.4%). Patients who underwent a near upstream colostomy presented with: acute bowel obstruction with pelvic shielding and/or peritoneal carcinosis (n=6, 18.8%), recto-vaginal fistula (n=4, 12.5%), pelvic shielding (n=3, 9.4%), bladder invasion (n=2, 6.25%), lung (n=2, 6.26%) and liver metastases (n=2, 6.26%); and peritoneal carcinosis (n=4, 12.5%). ***Conclusion:*** Cancers of the rectum are common. They are diagnosed late, hence the precariousness of management.

Keywords: Cancer, rectum, CHU, Brazzaville.

INTRODUCTION

Often included in the group of colorectal cancers (CRC), rectal cancer is increasingly frequent and poses a diagnostic and therapeutic problem in developing countries [1]. Its incidence is around 15,000 new cases per year in France, perhaps less if we consider that some cancers of the sigmoid (or recto-sigmoid junction) are sometimes recorded as cancers of the upper rectum. Treatment is based on surgical resection, in particular total removal of the mesorectum, often combined with preoperative radiochemotherapy [2]

In sub-Saharan Africa, it accounts for 1.of all malignant tumours, 10.of cancers of the digestive tract and of CRCs in Burkina Faso [3]. CASANELLI JM *et al.*, in the Ivory Coast reported 16 cases of rectal cancer over a period of 28 years at the Treichville University Hospital [4].

In Congo, Bolenga *et al.*, reported 12 cases of rectal cancer over a period of 4 years and 6 months [5].
The aim of this study is to examine the diagnostic and therapeutic aspects of rectal cancer at the Brazzaville University Hospital.

MATERIALS AND METHODS

This was a descriptive study with retrospective data collection that took place in the digestive surgery department at the Brazzaville University Hospital, from January 2020 to June 2023 (3 years and 6 months).

All patients treated for rectal cancer were included in this study. Tumours of the rectosigmoid hinge were not included.

The parameters studied were epidemiological, diagnostic and therapeutic.

The data were collected and analysed using Excel 2020 software.

RESULTS

Of the 2758 patients operated on during the study period, 112 were operated on for colorectal cancer, representing a hospital frequency of 4. There were 32 patients operated on for rectal cancer, a frequency of 1. The average age of patients was 56.5± 12.23 years, with extremes of 36 and 77 years. Rectal cancer affected 17

men and 15 women, giving a *sex ratio of 1.13*. A history of digestive cancer was found in 5 patients. Co-morbidities were found in 11 patients. These were arterial hypertension (n = 8) and diabetes (n = 7).

The reason for consultation was: proctalgia (n = 27); rectal discharge (n = 31), mucus discharge (n = 32).

Clinical examination revealed ascites (n = 4) and inguinal adenopathy in 9 patients. The tumour was perceptible on rectal examination in 17 patients 21 patients had undergone total colonoscopy and 11 patients had undergone short colonoscopy. In all cases, endoscopy revealed the presence of a rectal tumour.

These were tumours of the lower rectum (n = 11), middle rectum (n = 9) and upper rectum (n = 12). Pathological examination of the biopsies showed well-differentiated adenocarcinoma in 7 patients and moderately differentiated ADK in 2 patients. Radiologically, a CAT scan (Figure 1) was performed in 17 patients and an abdominal CAT scan in 11 patients. Pelvic MRI was performed in only one patient.

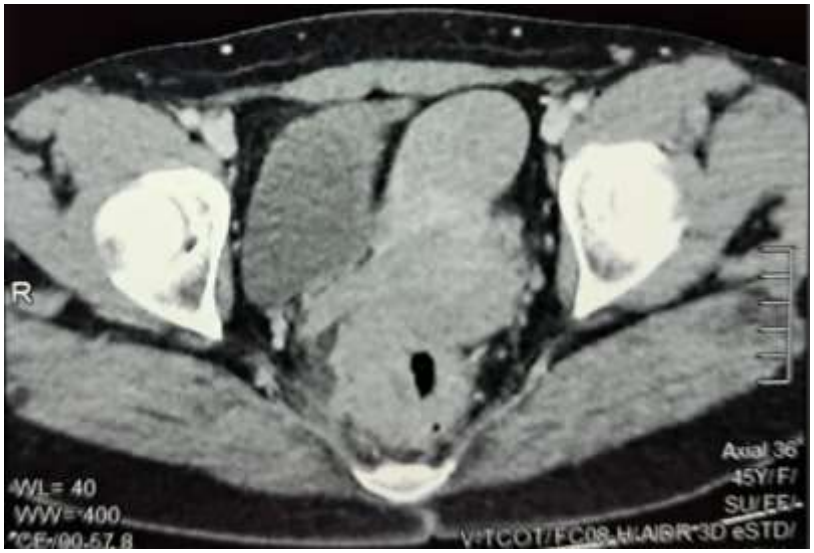

Figure 1: Scan image showing anorectal thickening

Therapeutic treatment: none of the patients received pre-operative radio-chemotherapy. All patients underwent surgery: 26 patients underwent scheduled surgery and 6 patients underwent emergency surgery. The approach was a single midline laparotomy in 24 patients and a double approach (abdominal and perineal) in 6 patients.

The procedures performed on these patients were:
curative:

- anterior resection of the rectum with colorectal anastomosis in 3 patients (9.4%)
- abdominoperineal amputation (Figure), with a definitive left iliac colostomy in 6 patients (18.8%)
palliative
- a near upstream colostomy (n=23; 72.2%). Patients who underwent a near upstream colostomy had: acute bowel obstruction with pelvic shielding and/or peritoneal carcinosis (n=6; 18.8%), recto-vaginal fistula (n=4; 12.5%), pelvic shielding (n=3; 9.4%), bladder invasion (n=2, 6.25%), lung (n=2; 6.26%) and liver metastases (n=2; 6.26%), and peritoneal carcinosis (n=4; 12.5%).

Figure 2: Images showing: A: the abdominoperineal amputation specimen; B: the perineum after suturing

The post-operative course was marked by: infection of the perineal wound in 3 patients, stomal prolapse (1 case). One case of recurrence on the perineal scar in one patient within one year. The pathological findings of the surgical specimens were consistent with well-differentiated ADK in 18 patients and moderately differentiated ADK in 14 patients. Lymph node curage was sufficient (≥ 12 nodes) in 8 patients and insufficient (< 12 nodes) in one patient. The section slices were healthy in all patients. The tumour was classified as pT3 and pT4 in 8 patients and pT2 in one patient. All patients were referred to medical oncology for postoperative chemotherapy.

DISCUSSION

Reputed to be rare in black Africa, rectal cancer represents a frequency of 1.16% in our series. This frequency is estimated at 1.31% of all cancers in Togo [6].

The average age of our patients, 56.5 ± 12.23 years, is similar to that of Dédé N'dri in Côte d'Ivoire [7] and higher than that of AYITE in TOGO [6].

As reported in the literature [6, 7], males predominated in our series. CASANELLI in the Ivory Coast found no sex difference [4].

The diagnostic circumstances observed in our study are identical to those reported in the literature; however, diagnosis is usually delayed in the Congo.

Cotte E *et al.*, [2] report in the national thesaurus of digestive oncology that colonoscopy, rectal MRI and CAT scan are essential complementary pre-therapeutic examinations in the management of rectal cancer. In our series, 21 patients had undergone total colonoscopy and 11 patients short endoscopy. CT scans were performed in 17 patients and abdominal CT scans in 11 patients. Pelvic MRI was performed in one patient. Dédé N'dri Simon *et al.*, in Ivory Cost reported 48 pelvic MRI examinations performed as part of a histologically proved rectal cancer extension work-up in 28 months.

Surgery, which is the mainstay of rectal cancer treatment, has undergone a number of advances in recent years, including the total removal of the mesorectum recommended by HEALD in order to reduce the rate of local recurrence [8]. Two types of operation dominate all surgical procedures: abdominoperineal amputation in 6 patients and anterior resection of the rectum in 3 patients. CASANELLI *et al.*, in Ivory Cost [4] performed PAA in 50% of cases and RAR in 37% of cases. Traoré *et al.*, in Burkina [3] performed PAA in 7 patients (26.6%) and RAR in 3 patients (11.6%).

As radiotherapy is not available in the Congo, none of the patients in our series underwent preoperative radiochemotherapy.

A near proximal colostomy was performed in 23 patients in our series, whereas 657urs a performed in only 2 patients in Burkina Faso by Traoré [3]. This difference may be explained by 657urs ample size, which is larger than that of Traoré.

In our series, the evolution was marked by infection of the perineal wound (3 cases), stomal prolapse (1 case) and one case of recurrence on the perineal scar. Traoré *et al.*, [3] found parietal suppuration in 7 cases, postoperative peritonitis in one case and 4 cases of local recurrence.

CONCLUSION

Rectal cancer is a rare disease. It is diagnosed on the basis of clinical features and confirmed on histology after endoscopic biopsies have been taken. It is treated surgically, but often in conjunction with radiochemotherapy

Conflicts of interest: The authors declare no conflicts of interest.

Author's contributions: All the authors played an active role in drafting and editing the article. They have read and approved the final version of the manuscript.

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