

Full Length Research Paper

Colon Cancers in Yalgado Ouedraogo University Hospital of Ouagadougou

Zare C^{1,3*}, Zida M², Sanon BG¹, LN Marie Ouedraogo², Ouangré E², Traore SS²

¹Department of Visceral Surgery of Souro Sanou University Hospital of Bobo- Dioulasso, Burkina Faso

²Department of Visceral Surgery of Yalgado Ouedraogo University Hospital of Ouagadougou, Burkina Faso

³Division of general surgery, CHUSS Bobo-Dioulasso. Burkina Faso

Abstract

We reported retrospectively 53 cases of colon cancer identified during 5 years in our surgery division. The aim of this report was to study epidemiological, clinical and therapeutic aspects of this malignancy in Burkinabe setting from January the 1st 2003 to 31st December 2008. Fifty three cases of colon cancer representing 16.2% of digestive tract malignancies and 2.3% of all malignancies were identified. The mean age was 49 years. The male was predominant. The average visit time was 16 months. Transit disorders (67.9%), a sub-occlusive syndrome (7.5%) and intestinal obstruction (24.5%) were the most frequent circumstances of discovery. Colonoscopy was performed in 64.15% of cases and the barium enema in 11.3% of cases. Right colonic localization represented 54.7% of cases. Ulcerative budding of cancer aspects (66%) and adenocarcinoma (75.5%) were dominant. Liver metastasis was observed in 8 cases. The right hemicolectomy was performed in 50.9%. The removal rate of the cancer after surgery was 86.8%. Ten (10) patients experienced complications such as parietal suppuration. Ten (10) deaths were recorded. The 5-year survival rate was 47.2%.

Keywords: Cancer, Colon, Bowel, Dysfunction, Adenocarcinoma, Surgery.

INTRODUCTION

Colon cancers are malignant tumors located between the ileocaecal junction and the rectosigmoid hinge. Colon cancers were typically rare in Africa (Nguemame et al., 1995; 2007; Padonou et al., 1994). In recent years these malignancies are more and more observed in our daily practices. Thus we propose to report retrospectively epidemiological, clinical and therapeutic aspects of colon cancer identified during 5 years in Burkinabe setting.

MATERIAL AND METHODS

It was a retrospective study of colon cancer in the division of visceral surgery of Yalgado Ouedraogo University Hospital of Ouagadougou, from January 2003 to December 2008. For each patient, the following

parameters were considered: age, gender, history, origin, circumstances of discovery, clinical signs, laboratory findings, the result of the histopathological examination of the surgical specimen, post-operative complications. Patients with no colon tumor confirmed histologically were excluded.

RESULT

During 5 years, 2280 malignancies were histologically confirmed with 328 digestive tract cancers (DT), 120 colorectal cancer (CRC) and 53 colon cancers were identified at CHUYO of Ouagadougou. Colon cancers represented 44.2% of all colorectal cancer, 16.2% of digestive tract cancers and 2.3% all malignancies.

The patients were split into 30 men (56.6%) and 23 women (43.4 %). The mean age was 49 years with extremes of 16 and 80 years. Twenty eight patients were from rural areas (52.8%) and 25 in urban areas (47.2 %).

*Corresponding author Email: zcyprien@yahoo.fr; Tel: 0022670089187

The average of consultation time was 16 months with a range of 3 to 36 months.

The circumstances of discovery were dominated by change in bowel habit in 36 cases (67.9 %), gradual onset of constipation with vague abdominal pain (23 cases), alternating diarrhea and constipation (9 cases) and persistent diarrhea despite treatment (4 cases).

A repeated sub-occlusive syndrome with abdominal pain, bloating and diarrhea was noted in 4 cases.

An occlusive syndrome was noted in 13 cases (24.5%) with pain, vomiting, stopping stool and gas, abdominal bloating in part.

From the history, it was noted six (6) cases of *Schistosoma mansoni* in (4 cases at the appendix and 2 cases in the rectum and sigmoid level). Three cases of familial history of colon cancer and 2 cases of rectosigmoid polyps were found. Colonic amebiasis and hemorrhoids were respectively found and treated within forty (40) and ten (10) patients.

Clinical examination revealed a laparotomy scar in 04 cases (appendectomy scar), irregular abdominal mass in 34 cases, with slimming in all cases, signs of dehydration in 13 cases and a clinical anemia in 47 cases.

Blood count and ionogram have revealed hemoglobin less than 9 g / dl in 34 cases and fluid and electrolyte disorders in 13 cases.

Colonoscopy performed in 34 cases, has allowed to view the location, anatomical aspects and to perform biopsies. It has also helped to view rectosigmoid polyps in 02 patients.

The water-soluble contrast performed in 6 cases, allowed to state the location of the tumor.

The abdominal ultrasound was performed in 35 cases, revealing a liver metastasis in 8 cases, peritoneal nodules in three cases. The plain radiography of the abdominal was performed in 17 patients and revealed hydro-scarce images in 13 cases.

The distribution of cancers by location and gender was shown in Tables 1 and 2. Distribution by segmental localization was noted in Table 3.

The tumor was ulcerobudding in 35 cases (66%) and infiltrative in 18 cases (40 %). The histological type was represented by adenocarcinoma in 40 cases (75.5%), lymphoma in 10 cases (18.9%) and sarcomas in 3 cases (5.6%).

Emergency treatment after resuscitation consisted in a right hemi-colectomy with ileo-transverse anastomosis in 5 cases, sigmoidectomy with temporary colostomy in 8 cases. The restoration of digestive continuity through colorectal anastomosis was conducted 2 months later. In delayed surgery, after preparation of the patient and the colon, a right hemi-colectomy was performed through ileo - transverse in 22 cases, left hemi-colectomy through colorectal anastomosis in 3 cases, an adjusted sigmoidectomy through colorectal anastomosis in 8 cases, an

ileo - transverse internal curvature in 2 cases, a transverse – sigmoido internal curvature in 2 cases and an exploratory laparotomy associated with biopsy in 3 cases. Chemotherapy based on 5 -fluorouracil and folinic acid was partially conducted for 20 patients because of high cost and unavailability of these drugs. Ten patients (18.9%) presented complications such as suppuration of the wall (6 cases) treated through local care, faecal fistula (4 cases) which dried up spontaneously. Local recurrence was observed in 4 cases after sigmoidectomy in casualty department and in 2 cases after left hemicolectomy, during the 8th and the 9th month postsurgery. These local recurrences required revision of the intervention. Ten deaths (18.9 %) were recorded respectively at the 1st month (3 cases), the 5th month (2 cases) the 8th month (2 cases) and the 18th month (1 case) after surgery. Twenty- five patients lived more than 5 years and 18 were lost to touch. In total, all the patients went for surgery with 100 % rate of operability. The surgery removal rate was 86.8 % (46 of 53 patients) and the curative surgery removal rate was 75.5 % (40 of 53 cases). Survival ranged from 1 to 18 months for the 10 patients who died postoperatively with an average survival time of 3.2 months. The 5-year survival rate was 47.2 %.

DISCUSSION

Colon cancers are commonly observed at the Yalgado Ouedraogo University Hospital. They represented 44.2% of colorectal cancers, 16.2% of digestive tract cancers and 2.3 % of malignant tumors. This frequency seems underestimated, because of the management of this disease in others medical structures in the city of Ouagadougou. Our results were identical to those of Traore et al. (1995) and contrary to those of Lombard et al. (1993) and Adolf et al. (2000) who noted respectively 2.2% and 15 % of malignant tumors. They were higher than Nawal et al. (2009) and Soro et al. (2006) who observed a frequency of 32% and 15.5% of colorectal cancers.

The increasing of animal fat intake instead of dietary fiber in our community is a common risk factor (Nguemame et al., 1994; Traore et al., 1995). Male predominance noted in our series was consistent with data from african authors who have made the same observation (Nawalo et al., 2009; Soro et al., 2006; Traore et al., 1995). In our study, 06 cases of intestinal bilharziasis (*Schistosoma mansoni*) and 40 cases of colonic amebiasis were noted. Some chronic inflammatory lesions mainly parasitic could induce colorectal cancer (Soro et al., 2006; Traore et al., 1995; Zida et al., 2005). These two parasites are common in rural areas and could explain the importance of caecal and sigmoid location in our series (Soro et al., 2006; Traore et al., 1995). Family history of colon cancer

Table 1. Distribution according to location

Location	Frequency	Percent
Right Colon	29	54,8
Left Colon	24	45,2
Total	53	100

Table 2. Distribution according to gender

Gender	Frequency	Percent
Male	30	56,6
Female	23	43,4
Total	53	100%

Table 3. Distribution according to colic segment

Segmentary Location	Frequency	Percent
Caecum	16	30,2
Ascendant colon	7	13,2
Angle and right transverse	6	11,3
Angle and left transverse	6	11,3
Descendant Colon	7	13,2
Sigmoide	11	20,8
Total	53	100 %

and the existence of double- polyposis colon noted in our study are classical risk factors (Adolf et al., 2000; Lombard et al., 1993; Traore et al., 1995). It should be noted in our study the prevalence of right location (29 cases). This predominance of right colon cancer has been reported by many african authors (Edino et al., 2008; Soro et al., 2006; Traore et al., 1995). The prevalence of caecal localization (30.2 %) was consistent with data from african authors (Harouna et al., 2008; Nguema-mve et al., 1995; 2007; Traore et al. 1995). The predominance of right colon cancers noted in this report is contrary to western series (Adolf et al., 2000; Lombard et al., 1993) where it happens to be the cancer of the left colon. The low life expectancy in our environment could be the explanation for the left colon cancers develop in older subjects.

The predominance of adenocarcinoma noted is also consistent with the data of many authors (Benarm et al., 1996; Edino et al., 2008; Nguema-mve et al., 2007). The precarious hygiene of patients, the poor dressing or bandaging practices, partly explained the importance of post -operative complications, particularly abscesses of walls. This fact has been reported by many authors (Benarm et al., 1996; Edino et al., 2008). The rate of curative surgery removal of the tumor was 75.5 %. In African literature this rate would vary between 40 and 84% (Benarm et al., 1996; Nawalo et al., 2009; Nguema-mve et al., 1995; Traore et al., 1995). The 5-year

survival median is 47 % in our series. The severity of colon cancer has been reported elsewhere in Africa by Nguema-mve and Graesslin, 1995, Benamr et al. (1996) who noted respectively a 5-year survival median of 16.5% and 40%. Nbassi et al. (2010) observed a survival median of 40% at 10 months. The traditional first-line treatment, a diagnosis often delayed; partly explain the severity of the colon cancer in our setting.

CONCLUSION

Colon cancers are more common in our environment. They affected young patients under 50 years. The early detection and treatment should lead to an improvement in survival median up to 5 years. Stop smoking and consumption of dietary fibers should be widely disseminated in our setting

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How to cite this article: Zare C, Zida M, Sanon BG, Marie Ouedraogo LN, Ouangré E, Traore SS (2014). Colon Cancers in Yalgado Ouedraogo University Hospital of Ouagadougou. Int. J. Med. Med. Sci. Vol. 1(4):42-45