COLORECTAL CANCER IN MAIDUGURI NORTH- EASTERN NIGERIA

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Colorectal cancer is a disease that is predominantly seen in the developed World than the developing countries but there is a rising incidence as a result of gradual change of diet to that of the western World. **Materials and Methods.** The study reviewed all histologically diagnosed patients with colorectal cancer over a seven year period between January 2007 and December 2013 managed at University of Maiduguri north-eastern Nigeria. **Results.** A total of 91 patients were managed but 9 were excluded due to incomplete records. Eighty – two were studied, age ranged between 11 and 77years with male to female ratio of 1.5:1. The peak age group was 41 – 50 years accounting for 32.93% **table 1**. Carcinoma of the rectum is the commonest with 51.49% followed by anal cancer in 21.78%, with tumour synchrony occurring in 3.66%. The clinical stage at presentation were Dukes A, B, and C in 15.85%, 50%, and 34.15% respectively. The tumour site was rectal in 54.12% **table 2**. The histological varieties showed Adenocarcinoma constituting the commonest in 92.68% of which 11.84% were mucinous. Carcinoid tumours in 6.10%, and lymphoma in 1.22%. Of the Adenocarcinoma, 65.79% were well differentiated. The procedures carried were anterior resection and end to end anastomosis to established bowel continuity in 49 while partial resection of bladder wall and posterior vaginal wall were done in 3 and 7 respectively **table 4**. The complications recorded were surgical site infection in 18.29%, enterocutaneos fistula in 3.66%, and mortality of 8.54%. **Conclusion.** Colorectal cancer in developing countries is on the rise, community health education, early detection through screening of the vulnerable age groups, and adequate multidisciplinary treatment reduces morbidity and mortality.

Keywords: Colorectal cancer, Age distribution, Management

INTRODUCTION

Colorectal cancer (CRC) is the uncontrolled growth of cells lining the large intestine. In most cases colon cancer begins as small non cancerous or benign tumors known as adenomatous polyps. Over the course of time some of the polyps may grow into malignant tumors. Colorectal cancer is the second most prevalent and the third leading cause of cancer death world – wide with almost 500000 related deaths every year (Parkin, D.M. 2001). It is currently the third most common neoplasm in the World, in USA the 5- year survival rate for all patients diagnosed with CRC is 62%, with the stage of the disease being the strongest determinant of prognosis(Ries et al 2003) Age greater than 50, alcohol abuse, reduced physical activity, obesity, unbalanced diet (poor in fibers, rich in fats), and familial history of polyps and inflammatory bowel disease are known risk factors for the development of the disease (Piedbois et al 1992)(Dannenberg P. V, Danenberg K.D 1978)(. Poon et al 1989)(poon et al 1991)(Piedbois P. and Michiels S. 2003). Screening for CRC has a positive impact in early detection of the disease and reduce mortality(Brenda et al 2010). Colorectal cancer presents usually with rectal bleeding, and tenesmus- a common symptom of low rectal cancer (Tong et al 2014)(Margaret et al 2011). Preoperative evaluation is critically important for optimal treatment, and offers objective prospect for sphincter preservation. More often than not, all patients should be individualized in the evaluation for sphincter presavationt (Knut et al 2017).   Histopathologically 95% of CRC are adenocarcinomas(Fatima A.H., Robin P. B. 2009). The study was aimed at determining the peak age group, gender distribution, and histological types of CRC in Maiduguri.

MATERIAL AND METHODS

The study retrospectively reviewed all patients histologically diagnosed with colorectal cancer and managed   in this

Hospital between January 2007 and December 2013. Permission for the study was granted by the Hospital management who serves as administrative and ethical committee and informed consent obtained from all patients. Information extracted from clinical and laboratory records and data analyzed using SPSS statistical analysis. All patients that presented with emergency were resuscitated using intravenous fluids, antibiotics (ceftriaxone/ metronidazole), tetanus toxoid, blood, and diverting colostomy where necessary. Investigations done were full blood count; blood chemistry, random blood sugar, proctosigmoidoscopy, colonoscopy and biopsy. Others were barium enema, abdominopelvic ultrasound scan; chest x-ray, and ECG. CT scan and MRI were done where indicated. All patients had bowel preparation before definitive surgery under general anesthesia.

RESULTS

A total of 91 patients were managed but 9 were excluded due to incomplete records. Eighty – two were studied, age ranged between 11 and 77years with male to female ratio of 1.5:1. The peak age group was 41 – 50 years accounting for 27(32.93%) **table 1**. Carcinoma of the rectum is the commonest with 52(51.49%) followed by anal cancer in 22(21.78%), with tumour synchrony occurring in 3(3.66%). The clinical stage at presentation were Dukes A, B, and C in 13(15.85%), 41(50%), and 28(34.15%) respectively. The tumour site was rectal in 46(54.12%) **table 2**. The histological varieties showed Adenocarcinoma constituting the commonest in 76(92.68%) of which 9(11.84%) were mucinous. Carcinoid tumours in 5(6.10%), and lymphoma in 1(1.22%). Of the Adenocarcinoma, 50(65.79%) were well differentiated. The procedures carried were anterior resection in 49 while partial resection of bladder wall and posterior vaginal wall were done in 3 and 7 respectively **table 3**. The complications recorded were surgical site infection in 15(18.29%), enterocutaneos fistula in 3(3.66%), and mortality of 7(8.54%).

DISCUSSION

Colorectal cancer is a global problem, with higher incidence in the developed countries (Andrew R.M. and Hohgmei N.2016) though declining recently(Center M.M., Jemal A.W.E.2009). The disease is seen in patients older than 50 years (Christina et al 2015), in contrast to developing countries where the disease though rare but is being seen in younger patients with a rising incidence. In this study the peak age group was the 5th decade in contrast to the study by Andrew R. M. and Hongmei N.(2016) in United States where the peak incidence was a decade older. The commonest site of CRC in the current study was the rectum similar to the findings by Irabor et al (2011)in Ibadon Nigeria. Though most tumors were well differentiated, late presentation with advanced disease was the norm. These were the findings by Clegg-Lampty et al (2009)in Ghana . The histological variety showed adenocarcinoma as the commonest in 92.68% which was similar to the study by Ibrahim et al (2011)in Ilorin Nigeria.Tumor synchrony was seen in 3.66% which was similar to the findings by Van Leersum et al (2014)in the Dutch . Complications recorded were surgical site infection in 18.29% which was similar to study by Serra et al(2011) in Spain that recorded 23% . Enterocutaneos fistula in 3.66% and mortality of 8.54% which were close to the study by Osler et al(2011) that recorded between 3.5% and 44.1% in Denmark .

Table 1: Age distributions

Age (Years)	No	%
10 – 20	3	3.66
21 – 30	15	18.29
31 – 40	12	14.63
41 – 50	27	32.93
51 – 60	11	13.42
61 - 70	8	9.76
71 - 80	6	7.32
Total	82	100.00

Table 2: Distribution of cancer

Site of cancer	No	%
Ascending colon	7	8.24
Transverse colon	2	2.35
Descending colon	8	9.41
Sigmoid colon	13	15.29
Rectum	46	54.12
Anal canal	9	10.59
Total	85	100

NB Tumor synchrony occurred in 3(3.66%) patients

Table 3: Procedures done

Procedure	No
Right hemicolectomy and ileotransverse anastomosis	10
Left hemicolectomy and colocolic anastomosis	
Anterior resection and end to end anastomosis	23
Abdominoperineal resection and permanent left iliac end	49
colostomy	25
#Additional procedures	
	10

NB Additional procedures were excision of posterior vaginal wall 7, partial cystectomy 2, and excision of liver nodule in 2

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