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**Volume 36****Number 3****July-September****2011****Original Article****Colorectal carcinoma: our experience at tertiary care hospital**

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**ABSTRACT****Objective**

To determine the frequent site and presentation of colorectal carcinoma (CRC) in our population.

**Patients and Methods**

This study was conducted at the Department of Surgery, Chandka Medical College Hospital, Larkana, Pakistan from February 2008 to July 2010 and involved 34 patients with diagnosis of colorectal tumor who underwent surgery.

In all patients staging was done before surgery, while those patients presented in emergency were operated and staging done per-operatively. Biodata of patient, presenting features, site of tumor, stage, histopathology, and procedure performed

were noted. All the patients were sent for chemoradiotherapy before or after surgery. The data was analyzed by SPSS version 15.

## **Results**

Among 34 patients, 26 were admitted through OPD while 8 were admitted through emergency department. Age ranged from 22 to 75 years with mean of  $49.52 \pm 15.42$  years. 26 were male and 8 were female. Main presenting features were abdominal mass and bleeding per rectum. Sigmoid was the commonest site of with 10(29.41%) patients, followed by rectum. According to Duke's staging, stage A, B, C, and D were found in 0%, 8(23.52%), 12(35.29%) and 14(41.17%) patients.

Well differentiated carcinoma was the most common histopathological type and was seen in 12 (35.29%) patients. All were operated and procedure performed according to the site and condition of patient. Left hemicolectomy was the most commonly performed procedure.

## **Conclusion**

There is increasing number of patients with CRC even in young population, most common presentation with abdominal mass. Sigmoid was the most common site of tumor. Majority of patients presented in advance stage. Adenocarcinoma was most common histopathological finding and Left hemicolectomy was the most commonly performed procedure. Screening plan should be charted out to diagnose CRC in early stage. (Rawal Med J 2011;36:202-205).

## **Key Words**

Colorectal carcinoma, sigmoid colon, CRC, adenocarcinoma, left hemicolectomy.

## **INTRODUCTION**

Colorectal carcinoma incidence has increased dramatically following economic development and industrialization.<sup>1</sup> CRC is a common malignancy. In USA, every year 160,000 cases of CRC are diagnosed and 57000 patients die of the disease making it the second leading cause of cancer related deaths in USA.<sup>2</sup> While in UK, it accounted for 16000 deaths in 2003. It represents a large part of the general surgeon's elective and emergency workload.<sup>3</sup> The predominance of vegetarian dietary habits of people living in the Asia subcontinent protects them against the CRC.<sup>4</sup>

Adenocarcinoma comprises the vast majority (98%) of CRC and squamous cell carcinoma develops in the transitional area from the rectum to anal verge and considered as anal carcinoma.<sup>1,5</sup> Despite advances in adjuvant therapy, surgery remains the main and effective treatment for CRC. Stage I and II are curable by surgical excision and advanced stage cases are curable by surgery combined with adjuvant chemotherapy.<sup>6-7</sup> Over the last decade 5 year survival rate has increased from 30% to 45%.<sup>3</sup> The aim of this study was to determine the site and presentation of CRC in our population.

## PATIENTS AND METHODS

These case series were studies at Department of Surgery, Chandka Medical College Hospital Larkana, Pakistan, from February 2008 to July 2010. A total of 34 cases were enrolled with non probability sampling. All were diagnosed CRC and had undergone surgery. Those who were not operated or who did not consent for study were excluded. Purpose and procedure of the study were explained to the patient in local language and informed consent was taken from the patients or 1<sup>st</sup> degree relatives.

In all patients, investigations for diagnosis and staging done, including colonoscopy and biopsy, CT scan abdomen and other supportive investigations, while those patients who presented in emergency were operated and staging was done per-operatively. None of the patients had prior colonoscopy or a history of polyp or inflammatory bowel disease. Biodata of patient, presenting features, site of tumor, stage, histopathology, and procedure performed were recorded. All the patients were sent for chemoradiotherapy before or after surgery. The data were analyzed by SPSS version 15.

## RESULTS

Among 34 patients, 26 were admitted through OPD while 8 were admitted through emergency department. Age ranged from 22 to 75 years with mean  $49.52 \pm 15.42$  years. Sixteen (47%) patients were in 4<sup>th</sup> and 6<sup>th</sup> decade. 26

(76.47%) patients were male and 8 (23.52%) were female. Main Clinical features were abdominal mass and bleeding per rectum (Table 1).

**Table 1. Presenting features.**

Feature	Number	Percentage
Abdominal mass	12	35.29
Bleeding per rectum	8	23.52
Obstruction	7	20.58
Abdominal pain	4	11.76
Loose motion	3	8.82

Sigmoid was the commonest site of tumor (Table 2). Most of the patients were in advance stage. According to Duke's staging, stage A, B, C, and D were found in 0%, 8 (23.52%), 12 (35.29%) and 14 (41.17%) patients, respectively.

**Table 2. Site of tumor.**

Site	Number	Percentage
sigmoid	10	29.41
Rectum	8	23.52
Ascending colon	5	14.70
Descending colon	4	11.76
Transverse colon	4	11.76
Caecum	3	8.32

Well differentiated carcinoma was the most common histopathological finding in 12 (35.29%) patients followed by moderately differentiated adenocarcinoma in 9 (26.47%), poorly differentiated adenocarcinoma in 8 (23.52%) and mucinous variety in 5 (14.70%).

**Table 3. Procedures performed.**

Procedure	Number	Percentage
Lt hemicolectomy	10	29.41
Rt hemicolectomy	8	32.52
APR	7	20.58
Anterior resection	1	2.94
Transverse colectomy	4	11.76
Palliative colostomy	4	11.76

Left hemicolectomy was the commonest operation performed (Table 3).

## DISCUSSION

It was thought that CRC has low prevalence in our part of world and people living in Asian subcontinent having predominant vegetarian dietary habits are protected from it,<sup>8</sup> but still large number of patients attend hospitals with CRC. In this study, age ranged from 22 to 75 years with majority of patients in 4<sup>th</sup> and 6<sup>th</sup> decade. Age ranged in other studies from 14 to 74 years.<sup>9-12</sup> Usually, CRC was considered as disease of old age but here cases have been reported in younger age group as well. It has been reported that young patients with CRC present at

advance stage and curative resection can be offered to few of them.<sup>9</sup> Among 34 patients 26 were male while 8 were female with the M:F ratio of 3.25:1. Gender differences in other studies were 1.25:1,<sup>9</sup> 2.3:1,<sup>10</sup> 1.5:1,<sup>11</sup> 2.3:1<sup>13</sup> and 2.3:1.<sup>14</sup> All these studies showed that CRC was slightly predominant in males.<sup>12,15</sup>

There are various presentations of CRC. In our study, most common presentation was abdominal mass followed by bleeding per rectum. Other researchers have reported bleeding per rectum and pain as presenting symptom in most of their patients.<sup>9,11</sup> On the other hand, altered bowel habits as commonest presenting feature followed by bleeding per rectum have been described.<sup>10,16</sup>

Site of tumor has its role in presentation and management of disease. In our study, most common site was sigmoid followed by rectum. Rectum as the most common site of involvement has been reported by many investigators.<sup>9-12</sup> Studies from different regions<sup>4,17-19</sup> have documented almost similar figure regarding location of tumor in large gut and showed that more than 50% of malignancy is present in the rectosigmoid region, as in our study, 52.94% tumors were at this region.<sup>4,17,18,19</sup> Most of the studies agree on the fact that patients present in advance stage. In our study, 76.46% patients were in advance stage (Duke C&D) which is comparable with other studies.<sup>14,20,21</sup> Other studies have reported 42%<sup>16</sup> and 41%<sup>10</sup> were in advance stage.

Along with other factors like age of patients and stage of tumor, histopathology has large influence on the prognosis of disease. In our study, 12 (35.29%) patients

had well differentiated adenocarcinoma followed by moderately differentiated adenocarcinoma, while more dangerous mucinous type was in 14.70% patients. Other series described adenocarcinoma as the most common histopathological finding.<sup>10,11,22</sup> However, 45% of the tumor were mucinous adenocarcinoma in one study,<sup>9</sup> which is much higher than our study. Most commonly performed procedure was Left hemicolectomy, as reported Memon et al.<sup>15</sup>

## CONCLUSION

There are increasing numbers of patients with CRC even in young population. Most presented with abdominal mass. Sigmoid was common site. Unfortunately, majority of patients presented in advance stage. Adenocarcinoma was most common histopathological finding and Left hemicolectomy was the most commonly performed procedure in our study. Screening plan for colorectal carcinoma is advocated so that the cases may be detected at earlier.

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