

YOUNG AGE AND ADVANCED DISEASE ON PRESENTATION OF PAKISTANI COLORECTAL CANCER PATIENTS REFERRED FOR CT STAGING

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PJR October - December 2013; 23(4): 133-135

ABSTRACT

BACKGROUND: Colorectal cancer is the fourth leading cause of cancer death worldwide. There are very limited data about colon cancer in Pakistan and this deficiency precludes serious efforts towards early detection and screening. **OBJECTIVE:** The aim of this study was to elucidate the extent and CT stage of disease in newly diagnosed Pakistani colorectal cancer patients. **METHODS:** Consecutive patients with newly diagnosed colorectal cancer referred for CT staging were included in this retrospective study. Data extracted from the records included demographic data as well as data from the CT scan reports. **RESULTS:** 98 consecutive patients with colorectal cancer referred for staging CT were included in this study. The average age was 49 years and 44% (43) were less than age 50. 52% (51) were male. The rectosigmoid was the most common tumor site, accounting for 77% (75) of tumors. The left side of the colon, including the descending colon, sigmoid colon, and rectum, was the site of 83% (81) of the tumors. 38% (37) had CT evidence of disease limited to the tumor site without lymphadenopathy or metastatic lesions. 62% (61) had locoregional or distant metastatic lesions. Regional lymphadenopathy was seen in 51% (50) of patients. **CONCLUSIONS:** The younger age at diagnosis, left side cancer predominance disease, and a significant proportion of patients with advanced malignancy at diagnosis highlights the need for a colon cancer screening program to reduce the incidence of this largely preventable disease.

Keywords: Colorectal cancer, cancer screening, CT

Background

Colorectal cancer is the fourth leading cause of cancer death worldwide.¹ In much of the Western world, colon cancer screening has become standard care. Numerous studies have shown that screening reduces the incidence of colon cancer.²⁻⁵ There are very limited data about colon cancer in Pakistan and this deficiency precludes serious efforts towards early detection and screening.

The aim of this study was to elucidate the extent and

CT stage of disease in newly diagnosed Pakistani colorectal cancer patients.

Methods

Consecutive patients with newly diagnosed colorectal cancer referred to the Advanced Radiology Clinic for CT staging between January and December 2009 were included in this retrospective study. Data extracted from the records included demographic data as well as data from the CT scan reports. Data extracted from

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Submitted 19 November 2014, Accepted 23 January 2015

CT scan reports included the location of the colonic tumors, the presence of lymphadenopathy, and locoregional metastases. Patients with inflammatory bowel disease and those with a prior history of colon or other malignancies were excluded from this study. Institutional Review Board approval was obtained for this study.

Results

98 consecutive patients with colorectal cancer referred for staging CT were included in this study. The average age was 49 years and 44% (43) were less than age 50. 52% (51) were male and 48% (47) were female. The rectosigmoid was the most common tumor site, accounting for 77% (75) of tumors. The left side of the colon, including the descending colon, sigmoid colon, and rectum, was the site of 83% (81) of the tumors (Tab. 1). 38% (37) had CT evidence of disease limited to the tumor site without lymphadenopathy or metastatic lesions. 62% (61) had locoregional or distant metastatic lesions. Regional lymphadenopathy was seen in 51% (50) of patients. One patient had ascites and one had aortic encasement by tumor. Metastatic liver lesions were seen in 22% (22). Five patients had metastatic lung lesions and one had bone lesions.

Rectum	47
Sigmoid Colon	28
Descending Colon	6
Splenic Flexure	1
Transverse Colon	5
Hepatic Flexure	2
Ascending Colon	4
Cecum	5
Total	98

Table 1: Site of Colorectal Malignancy

Discussion

There are very limited published epidemiologic data on colorectal cancer in Pakistan. True incidence data does not exist. The closest to this is data from the

Karachi Cancer Registry for Karachi, South which reported 473 cases of colorectal cancer between 1995-2002.⁶ This data is limited by the possibility of bias and inaccuracy due to under-reporting. However, based on their database, the crude incidence rate of colorectal cancer for males was 4.1% and 3.2% for females.

Our study showed a preponderance (83%) of left sided colorectal malignancies. The Karachi Cancer Registry also reported a majority of left colon and rectal cancers. This is consistent with other studies that have shown predominately left sided colorectal malignancies in unscreened populations. When colon cancer screening programs are instituted, left sided malignancies gradually reduce through the early detection and removal of polyps.⁷

Perhaps the most striking factor of this series is that 44% were less than age 50. The Karachi Cancer Registry data also showed that approximately 50% of tumors occurred in patients less than age 50. The cause for this requires more investigation. The impact of consanguineous marriages, the affect of smoking and betel nut consumption on colorectal cancer in this population need further study. These findings also emphasize the need for educating doctors and these patients about the need for family members of patients with colorectal cancer to undergo screening.

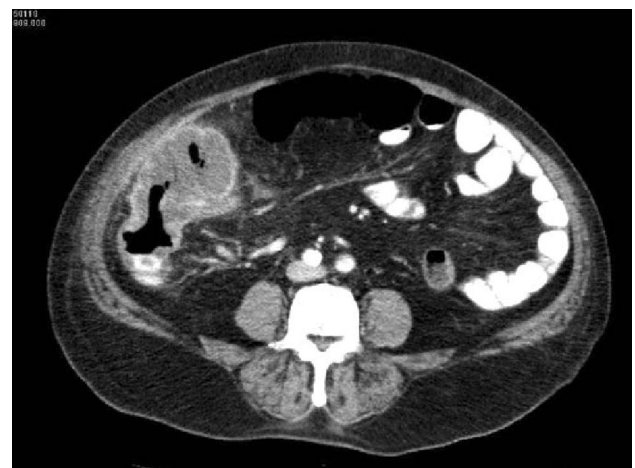


Figure 1: This CT image shows a cecal and ascending colon adenocarcinoma with partial luminal obstruction.

In this series, two-thirds of patients had locally advanced or metastatic disease based on CT findings at the time of diagnosis. The Karachi Cancer Registry reported that most patients in their cohort also presented with advanced disease. This phenomenon is common for

many malignancies in developing countries where patients present late with advanced disease due to lack of resources and facilities, lack of screening programs, and a lack of awareness among patients and doctors.

This study is limited by its retrospective nature, the lack of data about risk factors and family history, and the lack of pathologic staging. However, the advanced nature of 62% of malignancies at diagnosis in this study would preclude surgery in many of these patients.

Conclusion

The younger age at diagnosis, left side cancer predominance disease, and a significant proportion of patients with advanced malignancy at diagnosis highlights the need for a colon cancer screening program to reduce the incidence of this largely preventable disease.

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