

## Frequency of Rectal Cancer among Young and Older patients

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### ABSTRACT

**Aim:** To determine the frequency of rectal cancer among young and older patients.

**Methods:** All patients determined to have rectal carcinoma at tertiary consideration from January 2018 to December 2019 were recruited for this cross sectional study. Segment just as clinicopathological information of the rectal cancer patients were gathered reflectively and recently analyzed histologically affirmed instances of either sexual orientation remembered for this investigation while the patient critical ill and unstable patients, pregnant and lactating ladies and patient with hemorrhoids were rejected from the study. Patient information included age, sex, nationality, tumor morphology, tumor stage and separation, carcinoembryonic antigen (CEA) levels at show, and so forth.

**Results:** Among all the fifty (50) patients under study, 30(60%) were below 40 years and 20(40%) were  $\geq 40$  yr of age. The mean age (yrs) at presentation was  $46.64 \pm 8.74$  the youngest patient was 18 years old. More than 70% of the patients were belonged to rural area of province including tribal and non-tribal population. Of the 50 patients, 45 were diagnosed with rectal adenocarcinoma, while five patients in the  $\geq 40$  yr age group had squamous cell carcinoma. The ulcerative morphology was identified as 20(40%) and 5(10%) in young and older patients whereas the polypoid morphology was seen in 10(20%) and 15(30%) young and older patients respectively. Among young and older population the level of tumour was also studied and observed as low 10(20%) and 12(24%) and high 8(16%) and 20(40%). In younger population the well, moderate and poorly differentiated cells was seen in 3(6%), 7(14%) and 6(12%) while in older patients the well, moderate and poorly differentiation was seen in 9(18%), 12(24%) and 13(26%).

**Conclusion:** The young patients had transcendence of low rectal tumors, progressed T-stage and poorly differentiation tumor and advance level stage of illness stage when contrasted to older patients.

**Keywords:** Liver abscess, C-reactive protein, and Inflammatory marker

### INTRODUCTION

Colorectal carcinoma (CRC) is the third most basic harm on the planet and the fourth most common cancer among women in 1975 arrived at the second position in 1990<sup>1</sup>. In spite of the fact that the announced frequencies not reveal about the expanding weight of illness in Pakistan<sup>2,3</sup>. Specialists in Pakistan have seen a huge ascent in the rate of CRC in the previous many years. Colorectal malignancy is a multifactorial infection<sup>4</sup>.

Exploration has recognized many related components, including hereditary problems like familial adenomatous polyposis disorder to procured illnesses like incendiary bowel disorders<sup>5</sup>. The occurrence of colorectal malignancy (CRC) in the Western world is just about multiple times that of Pakistan<sup>6</sup>. This has been ascribed to overwhelmingly the dietary example of the populace. The low fat and high foods grown from the ground content in the Pakistani eating regimen just as the utilization of specific flavors, like turmeric (curcumin) may have an anti oxidant job in disease prevention<sup>7</sup>. However, a few investigations have uncovered a proportionately high occurrence of CRC in the more youthful age bunch, particularly in males under the age gathering of 40 years<sup>8</sup>. Additionally, the proportion of colon malignancy to rectal malignant growth gives off an impression of being equivalent, which is ordinary of geographic areas with low rate of CRC. In correlation, in the Western World where the rate of CRC is high, this proportion is roughly 2:1<sup>9</sup>. There are additionally hereditary impacts in various ethnic gatherings for the advancement of inherited CRC. The Lynch disorder [Hereditary Nonpolyposis Colorectal Cancer (HNPCC)] is an overwhelmingly acquired condition portrayed by the improvement of an assortment of tumors every now and again including malignant growth of colorectum, endometrium, and different areas like the little gut, stomach, urinary lot, ovaries, and brain<sup>10</sup>.

The Human Variome Project which expects to work with sharing of all hereditary varieties affecting human illness,

discovered that there are contrasts in the quality variations of the Chinese populace which might be a contributing component for advancement of inherited CRC<sup>11</sup>. Hereditary Non-polyposis colorectal cancer (HNPCC) is connected to pathogenic transformations in one of the confound fix (mismatch repair - MMR) qualities and Familial Adenomatous Polyposis (FAP) might be brought about by high-penetrant changes inside the Adenomatous Polyposis Coli (APC) gene<sup>12</sup>. Such hereditary variations for CRC in the South Asian populace stay to be explained. With this foundation, this survey intended to decide the highlights and clinicopathological qualities of RC patients in Pakistani populace through the information gathered at a tertiary healthcare consideration.

### PATIENTS AND METHODS

All patients determined to have rectal carcinoma at tertiary consideration from January 2018 to December 2019 were recruited for this cross sectional study after permission from IRB. The emergency clinic has oncology serving office for the whole populace of Sindh region. Segment just as clinicopathological information of the rectal cancer patients were gathered reflectively and recently analyzed histologically affirmed instances of either sexual orientation remembered for this investigation while the patient critical ill and unstable patients, pregnant and lactating ladies and patient with hemorrhoids were rejected from the study. Patient information included age, sex, nationality, tumor morphology, tumor stage and separation, carcinoembryonic antigen (CEA) levels at show, and so forth The patients were isolated into two gatherings; a more youthful of under 40 years old and a more older 40 years or more. Tumor associations inside 15 cm from the butt-centric skirt by rectal assessment, colonoscopy or MRI were thought of. Tumors 0.1-5cm from the butt-centric skirt were named low rectal tumors and all resected tumors were arranged by UICC and TNM characterization. All the patients were treated accordingly while the gathered information was analyzed in SPSS to decide the frequencies and rates.

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## RESULTS

Among all the fifty (50) patients under study, 30 (60%) were below 40 years and 20 (40%) were  $\geq 40$  yr of age. The mean age (yrs) at presentation was  $46.64 \pm 8.74$  the youngest patient was 18 years old. More than 70% of the patients were belonged to rural area of province including tribal and non-tribal population. Of the 50 patients, 45 were diagnosed with rectal adenocarcinoma, while five patients in the  $\geq 40$  yr age group had squamous cell carcinoma. The common presentations were bleeding per rectum (40%), weight loss (38%) and anaemia (40%), altered bowel habits (35%), large bowel obstruction (38%) and abdominal lump (32%). Regarding the tumour characteristics male and female population was observed as 23(46%) and 27(54) patients in young and older patients while the ulcerative morphology was identified as 20(40%) and 5(10%) in young and older patients whereas the polypoid morphology was seen in 10 (20%) and 15(30%) young and older patients respectively. Among young and older population the level of tumour was also studied and observed as low 10(20%) and 12 (24%) and high 08 (16%) and 20(40%). In younger population the well, moderate and poorly differentiated cells was seen in 03 (6.0%), 7(14%) and 6(12%) while in older patients the well, moderate and poorly differentiation was seen in 9(18%), 12(24%) and 13(26%). The T-stage was found T0/T1/T2, T3 and T4 as 4(8%), 8(16%) and 10(20%) in young individuals while identified as 7(14%), 10(20%) and 11(22%) in older individuals. In young population the TNM /UICC revealed as 7(14%) in stage I, 5(10%) in stage II, 6(12%) in stage III and 8(16%) in stage IV while in older patients it was 6(12%) in stage I, 8(16%) in stage II, 5(10%) in stage III and 5(10%) in stage IV respectively. The carcinoembryonic antigen (CEA) among young population was categorized as  $<2.5$ ng/ml in 3(6%), 5-10ng/ml in 8(16%) and  $>10$ ng/ml in 7(14%) patients whereas it is  $<2.5$ ng/ml in 5(10%), 5-10ng/ml in 9(18%) and 18(36%) among older patients respectively. Highest proportion of rectal cancer patients was observed in the age group of 30-39 (30%) followed by the 50-59 age group (16%).

## DISCUSSION

Earlier study directed in different oncology habitats and emergency clinics have archived a generally higher extent (42 to 48%) of youthful age RC or CRC in West Bengal contrasted with the remainder of India<sup>13</sup>.

In one examination from a tertiary oncology place in India, a high event of under 40 yr RC was accounted for (35%) and 39% of the investigation bunch contained patients from West Bengal.<sup>13</sup> As West Bengal, Bangladesh and the number of inhabitants share comparable geographic, dietary and ethnic qualities, practically genetic susceptibility and sickness attributes are likewise likely. Around the world, concentrates on colorectal malignant growth have archived particular contrasts in sickness attributes of more youthful and more seasoned patients as far as stage, grade, area of tumors and endurance. The more youthful patients present with a more forceful infection, are progressed in stage with troublesome histopathological discoveries (mucinous and signet ring cells)<sup>14,15</sup> In a significant number of the reports on youthful age CRC from the developed nations, a positive family ancestry was seen in 25-35 percent of the patients<sup>16</sup>. Notwithstanding, in the greater part of the investigations on Indian and Bangladeshi patients and furthermore in the patients of our populace a positive family ancestry was exceptionally uncommon ( $<1\%$ ), if at all reported.<sup>17,18</sup> In former study unmistakable contrasts were seen between quality articulation profiles of Bangladeshi CRC patients (61% under 40 yr) and their western partners.

However the MSI status was comparable for both the gatherings (16% versus 15% MSI positive)<sup>19</sup>. This triggers a doubt of hidden hereditary elements related with RC at a more youthful age in this populace, which may be not the same as the definitely known familial malignant growth of enormous inside like HNPCC or

familial adenomatous polyposis (FAP). As there are no normal screening programs accessible for RC in different country territories, so the clinicians should give more accentuation on rectal assessment by sigmoidoscopy or colonoscopy in more youthful patients with rectal side effects. The epidemiological and molecular survey should be done to recognize the etiology of youthful age rectal disease in our populace.

## CONCLUSION

The current investigation has archived a high extent of youthful age rectal malignant growth in a medical clinic based study and recognized particular clinicopathological contrasts with the older patients. The young patients had transcendence of low rectal tumors, progressed T-stage and poorly differentiation tumor and advance level stage of illness stage when contrasted to older patients.

**Conflict of interest:** Nil

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