



## Research Article

# A Study of Clinical Presentation and Risk Factors of Carcinoma Rectum

Authors

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## Aims and Objectives

1. To study age distribution of carcinoma rectum.
2. To study sex distribution of carcinoma rectum.
3. To study varied clinical presentation of carcinoma rectum.
4. To study the risks associated with various lifestyle factors.

## Etiology of Carcinoma Rectum

The development of colorectal malignancy involves interplay between genetic and environmental influences. Colorectal cancers that develop in individuals without hereditary links are referred to as “sporadic,” and account for 75% of all colorectal cancers. A potential genetic influence is identified in the remaining 25% of patients, including family history (15% to 20%); Lynch syndrome (5%); and FAP (<1%).

The aetiology is multifactorial and includes risk factors such as: increasing age, male sex and previous colorectal cancer. Lifestyle factors may also contribute to a higher risk. Lack of physical activity, low fruit and vegetable intake, low fibre and a high fat diet, overweight and obesity, tobacco use and alcohol consumption have all been associated with a higher risk.<sup>1</sup>

Adenoma is the precursor to rectal carcinoma. Approximately 10% of adenomas progress to invasive carcinomas through a well-defined sequence of genetic change called the adenoma-carcinoma sequence. This process may take 10 to 15 years.

## Inflammatory Bowel Disease

Patients with inflammatory bowel disease (IBD) are at significantly increased risk for developing colorectal cancer; the risk is proportional to the extent and duration of disease. In ulcerative colitis patients, where the risk of cancer appears to begin after 8 to 10 years of disease and increases at a rate of about 0.5% to 1.0% per year. Currently it is believed that the cancer risk is equivalent in Crohn and ulcerative colitis patients who have disease of similar duration and extent. An increased risk is also seen in patients with an onset of Crohn’s disease before the age of 30 years.

## Hereditary Rectal Cancer

About 20% of all rectal cancer cases might have a familial component. Most of the known familial syndromes are inherited in an autosomal-dominant pattern, resulting in a 50% risk for a child of an affected individual to bear the predisposition for the cancer form.

### **Familial Adenomatous Polyposis**

It accounts for 1% of all colorectal cancers, is characterized by early onset of hundreds to thousands of polyps throughout the colon. The disease is inherited as an autosomal dominant trait; therefore, 50% of offspring from an affected individual will develop polyposis coli. Variants of FAP are Gardner syndrome and Turcot syndrome.

### **Lynch Syndrome**

Lynch syndrome accounts for 5% to 6% of colorectal cancers. Its phenotypic features include early-onset colorectal cancer (a mean age of 46 years), synchronous or metachronous colorectal cancers (noted in 35% of cases), and a predominance of right-sided tumors. Lynch I syndrome refers to the cohort with colorectal cancer only, while Lynch II syndrome refers to the cohort of patients with colorectal cancer and other associated adenocarcinomas of the ovary, pancreas, breast, bile duct, endometrium, stomach, genitourinary tract, and small bowel. Lifetime risk is estimated at approximately half compared with the syndromes mentioned above<sup>2</sup>.

### **Clinical Features of Rectal Cancer**

Often, the early symptoms are so insignificant that the patient does not seek advice for 6 months or more, and the diagnosis is often delayed in younger patients as these symptoms are attributed to benign cause.

### **Bleeding Per Rectum**

Bleeding is the earliest and most common symptom. There is nothing characteristic about the time at which it occurs, nor is the colour or the amount of blood distinctive. The bleeding in every respect simulates that of internal haemorrhoids (haemorrhoids and carcinoma sometimes coexist).

### **Altered Bowel Habits**

This is the next most frequent symptom. A patient who has to get up early in order to defaecate, or one who passes blood and mucus in addition to faeces ('early-morning bloody diarrhoea'), is

usually found to be suffering from carcinoma of the rectum. Often, it is the patient with an annular carcinoma at the rectosigmoid junction who suffers with increasing constipation, and the one with a growth in the ampulla of the rectum who has early-morning diarrhoea.

### **Tenesmus**

The patient may endeavour to empty the rectum several times a day (spurious diarrhoea), often with the passage of flatus and a little blood-stained mucus ('bloody slime').

### **Pain**

If the growth of a tumour is constricting the rectum, abdominal colic may be the main complaint. Local anorectal pain is less common. When a deep carcinomatous ulcer of the rectum erodes the prostate or bladder, there may be severe pain. Pain in the back, or sciatica, occurs when the cancer invades the sacral plexus. Weight loss is suggestive of hepatic metastases. Invasion or compression of the pelvic blood vessels and lymphatics may produce unilateral or bilateral leg oedema

### **Signs**

Tumours in the lower and middle thirds of the rectum can be felt by digital rectal examination and assessed; by asking the patient to strain, even some tumours in the upper third can be 'tipped' with the finger. After it is removed, the finger should be examined for tell-tale traces of mucus, pus or blood. Proctoscopy can be used to inspect the anus, anorectal junction and lower rectum (up to 10 cm). Biopsy can be performed of any suspicious areas.

### **Abdominal Examination**

Abdominal examination is normal in early cases. Occasionally, when an advanced annular tumour is situated at the rectosigmoid junction, signs of obstruction of the large intestine are present. By the time the patient seeks advice, metastases in the liver may be palpable. When the peritoneum has

become studded with secondary deposits, ascites results.

### Stages Of Progression

The rectum is defined as the bowel that is reached within 15cm from the anus (anal verge) by a rigid rectoscope. The tumour is then inspected, and if it can be reached from the anus, it is assessed by digital palpation, which gives important information regarding possible fixation of the tumour. Diagnosis is made by multiple biopsies through a rectoscope or a flexible endoscope. Modern tumour staging aims at evaluating the local and distant spread of the disease.

### Materials and Methods

**Study Design:** The cross sectional study conducted in the department of surgery, NRI medical college and hospital, chinakakani.

Approval was taken from the ethical of institution.

**Sample size:** Total number of cases is 60.

**Duration of study:** July 2016 to Nov 2018

**Selection of cases:** Patients provisionally diagnosed as having carcinoma rectum either clinically or radiologically are included in the study.

Written consents were taken from all the cases included in the study.

The presenting symptoms, detailed past history, family history and personal history of all the patients were recorded.

A detailed general and systemic examination was done.

Routine investigations like complete blood count, viral markers, blood urea, serum creatinine, random blood sugar, blood grouping and typing, ultrasound abdomen, chest x ray, colonoscopy.

### Inclusion Criteria

1. All patients with provisional diagnosis as carcinoma rectum attending NRI medical college and Hospital, Chinakakani.
2. Patients above 18 yrs

### Exclusion Criteria

- 1) Patients below 18 yrs were excluded from the study.

- 2) Patients with bleeding per rectum due to benign polyps, benign ulcers, inflammatory bowel disease, diverticulosis.

### Statistical methods employed

Description of the categorical variables related to demographical, clinical, radiological and operative findings were presented as frequencies or percentages. Data was also pictorially presented either by pie charts or bar charts. Arithmetic means are reported for age of males and females included in the study.

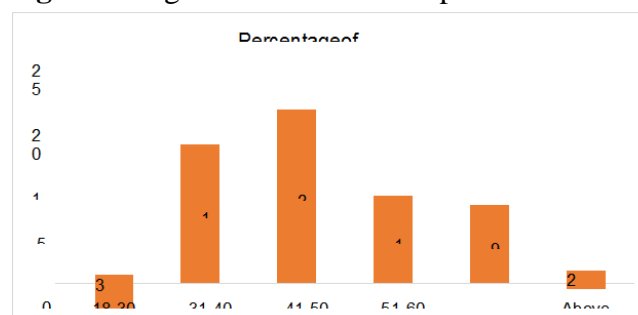
### Results

A total of 60 patients were recruited in the study. The mean age of the patients was 49 years within the range of 20-72 years. Table 1 reports the age distribution of patients included in the study and the figure 1 shows the distribution of patients in terms of their age.

**Table 1:** Age distribution of the patients

| Age group (years) | Total | Total Percentage |
|-------------------|-------|------------------|
| 18 – 30           | 3     | 5.0              |
| 31 - 40           | 16    | 26.7             |
| 41 -50            | 20    | 33.3             |
| 51 – 60           | 10    | 16.7             |
| 61 - 70           | 9     | 15.0             |
| 71 and over       | 2     | 3.3              |

**Figure 1:** Age distribution of the patients.

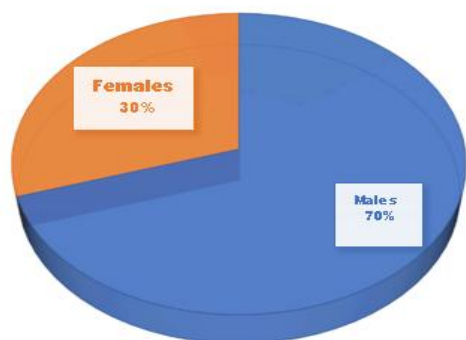


Inters of the gender distribution of the patients, 42(70%) were males and 18(30%) were females in our study carcinoma rectum was more common in males. Table 2 and figure 2 presents these results.

**Table 2:** Sex distribution of patients with Rectal Carcinoma

| Sex     | Total | Total Percentage |
|---------|-------|------------------|
| Males   | 42    | 70.0             |
| Females | 18    | 30               |

**Figure 2:** Sex distribution of patients with Carcinoma Rectum (N=60)



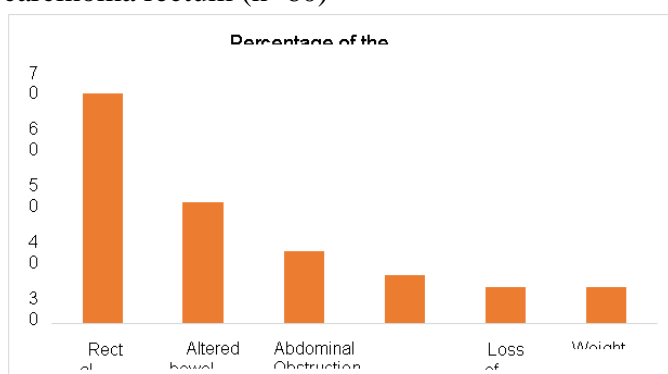
**Clinical Presentation**

Table 3 shows among 60 carcinoma rectum cases 38 (63.3%) presented with bleeding in rectum, 20 (33.3%) presented with altered bowel habits, 12 (20%) presented with abdominal pain, 8 (13.3%) presented with Obstruction, 6 (10 %) presented with Loss of appetite, and 6(10%) presented with Weightloss. In our study rectal bleeding was the most common complaint with which carcinoma rectum patients were presented.

**Table 3:** Clinical symptoms presentation of carcinoma rectum (n=60)

| Symptoms            | Total | Percentage of patients reported with the symptom |
|---------------------|-------|--|
| Rectal bleeding     | 38    | 63.3   |
| Altered bowel habit | 20    | 33.3   |
| Abdominal pain      | 12    | 20.0   |
| Obstruction         | 8     | 13.3   |
| Loss of appetite    | 6     | 10.0   |
| Weight loss         | 6     | 10.0   |

**Figure 3:** Clinical symptoms presentation of carcinoma rectum (n=60)



As stated in the table 4, our study shows that patients included in this study 49(81.7%) patients were on mixed dietary habits, 11 (18.3%) were on vegetarian diet, 50 (83.3%) patients were smokers,

46 (76.7%) were alcohol regularly consuming alcohol. Of all the patients 34 (56.7%) of the patients were obese with BMI>30.

**Table 4:** Dietary habits and patients with BMI>30 (n=60)

| Category        | Total | Percentage of patients reported in the category |
|-----------------|-------|---|
| Mixed diet      | 49    | 81.7  |
| Vegetarian diet | 11    | 18.3  |
| Smoking         | 50    | 83.3  |
| Alcohol         | 46    | 76.7  |
| BMI>30          | 34    | 56.7  |

**Figure 4:** Dietary habits and patients with BMI>30 (n=60)

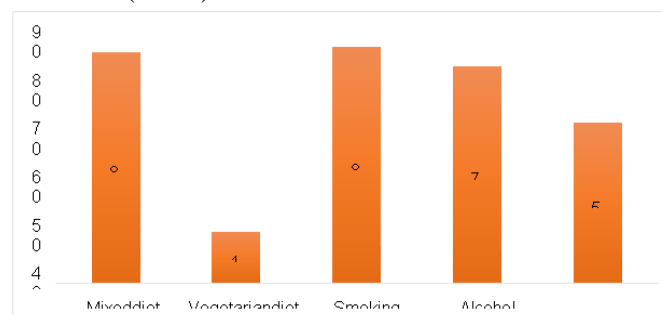
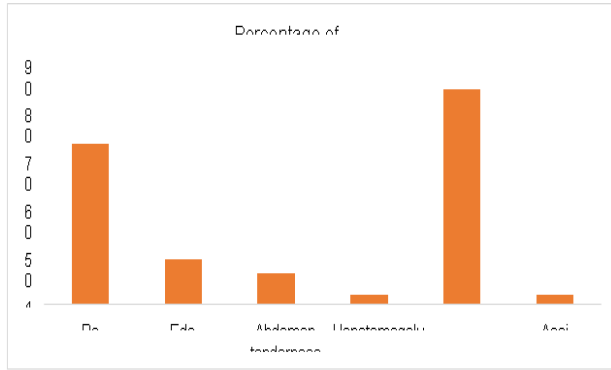


Table 5 presents the findings from clinical examination of the carcinoma of rectum showed, pallor was seen in 36 (60%), edema in 10 (16.7 %), abdomen tenderness in 7 (11.7%), hepatomegaly in 2 (3.3%), palpable per rectal growth in 48 (80%) and ascites in 2 (3.3%). In our study palpable rectal growth was present in majority of the patients (80%).

**Table 5:** Findings from examination of carcinoma of rectum in patients (n=60).

| Examination                | Total | Percentage of patients |
|----------------------------|-------|------------------------|
| Pallor                     | 36    | 60.0                   |
| Lymphadenopathy            | 0     | 0.0                    |
| Edema                      | 10    | 16.7                   |
| Abdomen tenderness         | 7     | 11.7                   |
| Hepatomegaly               | 2     | 3.3                    |
| Palpable per rectal growth | 48    | 80.0                   |
| Ascites                    | 2     | 3.3                    |

**Figure 5:** Findings from examination of carcinoma of rectum in patients (n=60).

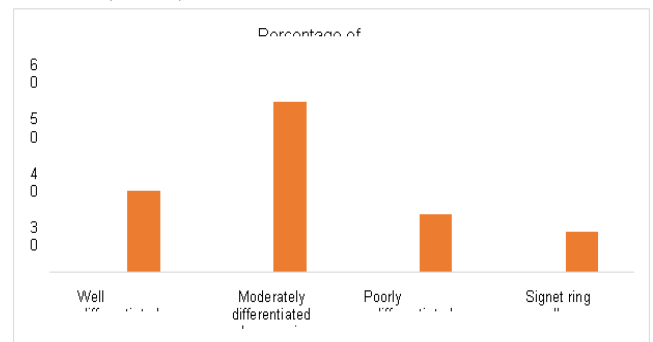


Results from histological examination of the rectal tissue are presented in table 6. It was observed that 14 (23.3%) patients showed well differentiated adenocarcinoma, 29 (48.3%) patients showed moderately differentiated adenocarcinoma, 8 (16.7%) patients showed poorly differentiated adenocarcinoma and 6(11.7%) patients showed signetring cell carcinoma.

**Table 6:** Findings from histological examination of rectal tissue in patients with carcinoma of rectum (n=60).

| Histological finding                     | Total | Percentage of patients |
|--|-------|------------------------|
| Well differentiated Adenocarcinoma       | 14    | 23.3                   |
| Moderately differentiated adenocarcinoma | 29    | 48.3                   |
| Poorly differentiated adenocarcinoma     | 10    | 16.7                   |
| Signet ring cell carcinoma               | 7     | 11.7                   |

**Figure 6:** Findings from histological examination of rectal tissue in patients with carcinoma of rectum (n=60).



| S.no | Name               | Age | Sex | IP no   | Bleeding | PRA | Altered bowel habits | Obstruction | Pain abdomen | Pa | palpable rectal growth | Pallor | Hepatomegaly | Mixed diet | Alcohol | Smoking | Colonoscopy                       | HPE         |
|------|--------------------|-----|-----|---------|----------|-----|----------------------|-------------|--------------|----|------------------------|--------|--------------|------------|---------|---------|-----------------------------------|-------------|
| 1    | Veeraswantha rao.  | 40  | M   | 1790948 |          | P   |                      |             |              |    | P                      |        |              | P          | P       |         | Ulcerative growth                 | WDAC        |
| 2    | Krishnam rajub     | 36  | M   | 1804833 |          |     | P                    |             |              |    |                        |        |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 3    | P.Lakshmi          | 26  | F   | 1991422 |          |     |                      |             |              |    |                        | P      |              |            |         |         | Ulceroproliferative growth        | WDAC        |
| 4    | Rajivalli.K        | 65  | F   | 2107729 |          | P   | P                    |             |              | P  | P                      |        |              | P          |         | P       | Polypliod growth                  | PDAC        |
| 5    | G.V.Rao            | 54  | M   | 2166975 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 6    | M.Koteswar rao     | 63  | M   | 2203040 |          |     | P                    |             | P            | P  | P                      |        |              | P          | P       | P       | Friable growth,lumen narrowing    | MDAC        |
| 7    | B.Hamamatha rao    | 56  | M   | 2207778 |          |     |                      |             |              |    | P                      |        |              |            | P       | P       | Polypliod growth                  | WDAC        |
| 8    | N.Krishnaya        | 65  | M   | 2204830 |          | P   |                      |             | P            | P  | P                      | P      |              |            |         | P       | Ulcerated growth,irregular mucosa | MDAC        |
| 9    | K.Nageswar rao     | 48  | M   | 2141188 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Ulcerative lesion                 | MDAC        |
| 10   | K. Sriramulu       | 65  | M   | 2039032 |          | P   | P                    |             |              |    | P                      | P      |              | P          | P       | P       | Ulceroproliferative growth        | PDAC        |
| 11   | Sk.abdul           | 50  | M   | 2217811 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 12   | G.Suseela          | 60  | F   | 2267694 |          | P   | P                    |             |              |    | P                      | P      |              | P          | P       | P       | Polypliod growth                  | WDAC        |
| 13   | L.Subbarao         | 65  | M   | 2260204 |          | P   | P                    | P           | P            |    | P                      | P      |              | P          | P       | P       | Circumferential ulcerative growth | MDAC        |
| 14   | Koteswaramma       | 60  | F   | 2367356 |          | P   | P                    |             |              |    | P                      | P      |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 15   | Subhama.s          | 57  | M   | 2355460 |          | P   | P                    |             |              |    | P                      | P      |              | P          | P       | P       | Ulcerative growth                 | MDAC        |
| 16   | B.chandra rao      | 51  | M   | 2354210 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | WDAC        |
| 17   | G.Subba rao        | 73  | M   | 2242420 |          | P   | P                    |             | P            | P  | P                      | P      |              | P          | P       | P       | Friable growth,lumen narrowing    | PDAC        |
| 18   | E.Lalitha          | 56  | F   | 2314511 |          | P   | P                    |             |              |    | P                      | P      |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 19   | Y.Durgam           | 56  | M   | 2425398 |          | P   | P                    |             |              |    | P                      | P      |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 20   | K.Venkata ratnam   | 61  | M   | 2311676 |          | P   | P                    |             | P            | P  | P                      |        |              | P          | P       | P       | Ulcerative growth                 | WDAC        |
| 21   | A.Prabhavathi      | 19  | F   | 2443737 |          |     |                      |             |              |    |                        |        |              | P          |         |         | Polypliod growth                  | Signet ring |
| 22   | N.Nagamani         | 52  | F   | 2473062 |          | P   |                      |             |              |    | P                      | P      |              |            |         | P       | Ulceroproliferative growth        | MDAC        |
| 23   | A.Padmavathi       | 57  | F   | 2394207 |          | P   | P                    |             |              |    | P                      | P      |              | P          | P       | P       | Ulcerated growth,irregular mucosa | MDAC        |
| 24   | K.Nizamuddin       | 67  | M   | 2474253 |          | P   | P                    |             | P            | P  | P                      |        |              | P          | P       | P       | Ulceroproliferative growth        | MDAC        |
| 25   | K.Ramanaih         | 44  | M   | 2405906 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | PDAC        |
| 26   | R.sayanarayana     | 70  | M   | 2503293 |          | P   | P                    | P           | P            | P  | P                      | P      |              | P          | P       | P       | Friable growth,lumen narrowing    | Signet ring |
| 27   | A.Swarajya lakshmi | 46  | F   | 2497094 |          | P   |                      |             |              |    | P                      | P      |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 28   | P.Mahaabob subhan  | 39  | M   | 2001267 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 29   | G.Lakshminamma     | 66  | F   | 2524143 |          |     | P                    |             | P            | P  | P                      |        |              |            |         |         | Ulcerated growth,irregular mucosa | WDAC        |
| 30   | D.Rajeswari        | 48  | F   | 2523970 |          | P   |                      |             |              |    | P                      | P      |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 31   | M.Vijayalakshmi    | 75  | F   | 2617933 |          | P   | P                    |             |              |    | P                      | P      |              | P          | P       | P       | Ulcerative growth                 | MDAC        |
| 32   | B.chinnaya         | 34  | M   | 2627956 |          |     |                      |             |              |    |                        |        |              | P          |         | P       | Polypliod growth                  | Signet ring |
| 33   | K.Appalswamy       | 45  | M   | 2302420 |          |     |                      | P           | P            |    | P                      |        |              | P          | P       | P       | Friable growth,lumen narrowing    | MDAC        |
| 34   | P.Narayana rao     | 38  | M   | 2454670 |          | P   |                      |             |              |    | P                      | P      |              |            | P       | P       | Polypliod growth                  | WDAC        |
| 35   | Pandu              | 35  | M   | 2309786 |          |     |                      |             |              |    |                        |        |              | P          |         | P       | Polypliod growth                  | MDAC        |
| 36   | A.Saviri           | 36  | F   | 2437374 |          | P   |                      |             |              |    | P                      |        |              |            |         |         | Polypliod growth                  | PDAC        |
| 37   | G.Pydiraju         | 40  | M   | 2175286 |          | P   |                      |             |              |    | P                      | P      |              | P          | P       | P       | Ulcerative growth                 | WDAC        |
| 38   | R.mohan Rao        | 48  | M   | 2456731 |          | P   | P                    |             | P            | P  | P                      |        |              | P          | P       | P       | Ulceroproliferative growth        | MDAC        |
| 39   | G.Ramana           | 50  | M   | 2254678 |          | P   |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | Signet ring |
| 40   | Alisha begum       | 44  | F   | 2254130 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | WDAC        |
| 41   | S.Appalswamy       | 50  | M   | 2109865 |          | P   |                      |             |              |    | P                      | P      |              | P          | P       | P       | Ulcerative growth                 | PDAC        |
| 42   | Eswar Rao          | 40  | M   | 2467389 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | MDAC        |
| 43   | R.Ranga Rao        | 36  | M   | 1583390 |          |     |                      |             |              |    |                        |        |              | P          |         | P       | Irregular ulcerative lesion       | WDAC        |
| 44   | Appa rao           | 50  | M   | 2209712 |          | P   | P                    |             | P            | P  | P                      |        |              | P          | P       | P       | Friable growth,lumen narrowing    | PDAC        |
| 45   | N.Gowri            | 35  | F   | 2472810 |          | P   |                      |             |              |    | P                      |        |              | P          | P       | P       | Ulcerative growth                 | MDAC        |
| 46   | Harsha Vardhan     | 35  | M   | 1904538 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Ulcerative lesion                 | MDAC        |
| 47   | Venkat rao         | 38  | M   | 1709253 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | Signet ring |
| 48   | Kumaraswamy        | 47  | M   | 2091564 |          | P   |                      |             |              |    | P                      | P      |              |            | P       | P       | Polypliod growth                  | PDAC        |
| 49   | Narasamma          | 48  | F   | 1926780 |          | P   |                      |             |              |    | P                      |        |              |            |         | P       | Polypliod growth                  | MDAC        |
| 50   | Seshayya           | 36  | M   | 2056143 |          |     |                      |             |              |    |                        |        |              | P          | P       | P       | Ulceroproliferative growth        | MDAC        |
| 51   | Narasannamma       | 45  | F   | 2209756 |          | P   |                      |             |              |    | P                      | P      |              | P          | P       | P       | Polypliod growth                  | Signet ring |
| 52   | Narasimhan         | 48  | M   | 2107345 |          |     | P                    |             |              |    | P                      |        |              |            | P       | P       | Polypliod growth                  | MDAC        |
| 53   | K.Ramulu           | 49  | M   | 2389564 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | WDAC        |
| 54   | Kumari             | 38  | F   | 1926756 |          | P   |                      |             |              |    | P                      |        |              | P          | P       | P       | Ulcerative growth                 | PDAC        |
| 55   | Sivakoti           | 29  | M   | 2065431 |          |     |                      |             |              |    |                        |        |              | P          |         | P       | Polypliod growth                  | MDAC        |
| 56   | Kasimbee           | 50  | M   | 2356438 |          | P   | P                    |             |              |    | P                      |        |              | P          | P       | P       | Ulceroproliferative growth        | MDAC        |
| 57   | Venkateswarlu      | 40  | M   | 2571890 |          |     |                      |             |              |    | P                      |        |              | P          | P       | P       | Ulcerative lesion                 | WDAC        |
| 58   | Kishore babu       | 48  | M   | 2516735 |          | P   |                      |             |              |    | P                      |        |              | P          | P       | P       | Polypliod growth                  | PDAC        |
| 59   | Baji khan          | 44  | M   | 2536782 |          | P   |                      |             |              |    | P                      |        |              | P          | P       | P       | Ulcerated growth,irregular mucosa | Signet ring |
| 60   | Veeranjaneyulu     | 49  | M   | 1902543 |          | P   |                      |             |              |    | P                      | P      |              | P          | P       | P       | Polypliod growth                  | WDAC        |

### Discussion

Age distribution of patients according to our study-3(5%) were in age group 18-30,16(26.7%) were in age group 31-40, 20(33.3%) were in age group 41-50 and 10(16.7%) in age group 51-60,9(15%) in age group 61-70,2(3.3%) in age group above 71. Most of the patients were in age group 31-50 constituting a total of 60%.Mean age of present study was 49.

Similar results were obtained by Rasool.et.al in his study of incidence of colorectal cancer in association with risk factors in a tertiary care hospital in Srinagar,Kashmir with a mean age of 48.

**Table:** Comparison of Age Distribution of Carcinoma Rectum

| AUTHOR                  | YEAR OF STUDY | MEAN AGE IN YEARS |
|-------------------------|---------------|-------------------|
| Deo S V.et.al           | 2001          | 45.3              |
| Eltinay and Guraya      | 2006          | 42.7              |
| Abdulrahman M.Aljebreen | 2007          | 55                |
| Rasool.et.al            | 2008          | 48                |
| SudarshanV.et.al        | 2013          | 43                |
| Present study           | 2016-18       | 49                |

According to our sex distribution of carcinoma rectum was 70% in males and 305 in females; there is slightly higher male ratio compared to results obtained by Sudarshan V et.al, Rasool A, et.al and according to Ferlay J ,this disease is slightly more common in men than in women ,by seven to five.

**Table:** Comparison of Sex Distribution of Carcinoma Rectum

| AUTHOR                  | YEAR OF STUDY | MALES (%)  | FEMALES (%) |
|-------------------------|---------------|------------|-------------|
| Eltinay and Guraya      | 2006          | 33(76.7)   | 10(23.2)    |
| Abdulrahman M.Aljebreen | 2007          | 65(58)     | 48(42)      |
| RasoolA,et.al           | 2008          | 56(57.7)   | 41(42.2)    |
| Sudarshan V et.al       | 2013          | 134(57.51) | 99(42.48)   |
| Present study           | 2016-18       | 42(70)     | 18(30)      |

varied clinical presentation of carcinoma rectum according to our study was -63.3% presented with bleeding per rectum,33.3% presented with altered bowel habits ,20% presented with pain abdomen,13.3% presented with obstruction and

10% presented with loss of weight. In our study rectal bleeding was the most common presentation.compared to other studies incidence of bleeding per rectum is higher in our study.

**Table:** Comparison of Clinical Presentation of Carcinoma Rectum

| AUTHOR                  | YEAR OF STUDY | CLINICAL PRESENTATION n(%)   |
|-------------------------|---------------|------------------------------|
| Eltinay and Guraya      | 2006          | Bleeding per rectum 16(37.1) |
| Abdulrahman M.Aljebreen | 2007          | Bleeding per rectum 70(62)   |
| Present study           | 2016-18       | Bleeding per rectum 38(63.3) |

Our study showed personal habits in 60 carcinoma cases as follows: mixed diet in 49(81.7%), vegetarian diet in 11(18.35), smoking in 15(83.3%) , alcohol in 46 (76.7%) and BMI>30 in 34(56,7%).

### Risks Associated with Colorectal Carcinoma

| DECREASED RISK             | INCREASED RISK        |
|----------------------------|-----------------------|
| Physical activity          | Red meat              |
| Food containing fibre diet | Processed meat        |
|                            | Alcohol drinks(men)   |
|                            | Body fatness          |
|                            | Abdominal fatness     |
|                            | Adult attained height |

There are several potential underlying mechanisms for a positive association of red meat consumption with colorectal cancer.red meat contains haem,which promotes the formation of potentially carcinogenic N-nitroso compounds as well as cytotoxic alkenals forms from fat peroxidation.red meat cooked at high temperatures ,results in the production of heterocyclic amines and polycyclic aromatic hydrocarbons that can cause rectal cancer with a genetic predisposition. CUP meta – analyses for sources of fibre and colorectal cancer showed a 10% decreased risk for cereal fibre.

On general and systemic examination our study showed Pallor was seen in 36(60%), edema in 10(16.7%), abdominal tenderness in 7(11.7%) , hepatomegaly in 2(3.3%), palpable per rectal growth in 48(80%) , and ascites in 2(3.3%).

According to Eltinay and Guraya study of colorectal carcinoma: clinicopathological pattern

and outcome of surgical management varied clinical findings are anemia 20(46.4%), abdominal distension 11(25.5%), hepatomegaly 4(9.2%).

Upto 80% of rectal cancers are palpable. the site of rectal cancers are measured in centimetres from the anal verge. The area upto 8 cms above the dentate line can be assessed for size, ulceration, lymph nodes and possible fixation.

According to our study histological picture 60 carcinoma rectum cases were 14(23.3%) well differentiated adenocarcinoma, 29(48.3%) moderately differentiated adenocarcinoma, 10(16.7%) poorly differentiated adenocarcinoma and 7(11.7%) signet ring cell carcinoma. Moderately differentiated adenocarcinoma was most common according to our study. Literature supporting are –

**Table:** Comparison of Histology of Carcinoma Rectum

| AUTHOR                   | YEAR OF STUDY | MODERATELY DIFFERENTIATED ADENOCARCINOMA n (%) |
|--------------------------|---------------|--|
| Eltinay and Guraya       | 2006          | 17(40%)  |
| Abdulrahman M. Aljebreen | 2007          | 63(56%)  |
| Present study            | 2016-18       | 29(48.3%)                                      |

### Conclusion

The present study includes 60 cases of carcinoma rectum. The was undertaken with a name of A STUDY OF CLINICAL PRESENTATION AND RISK FACTORS OF CARCINOMA RECTUM. Study was done on patients with provisional diagnosis of carcinoma rectum attending to the department of general surgery, NRI medical college and hospital, chinnakakani during the period between July .

Objectives being study of mean age and sex prevalence, identification of various modes of presentation and associated risk factors. Informed and written consent was taken from the individuals included in the study.

- 1) In our present study 3(5%) were in age group 18-30, 16(26.7%) were in age group 31-40, 20(33.3%) were in age group 41-50 and 10(16.7%) in age group 51-60, 9(15%) in age

group 61-70, 2(3.3%) in age group above 71. Most of the patients were in age group 31-50 constituting a total of 60%. Mean age of present study was 49 years.

- 2) There were 42(70%) males and 18(30%) females in the present study. In our study carcinoma rectum was more in males.
- 3) In our present study among 60 carcinoma rectum cases 38 (63.3%) presented with bleeding in rectum, 20 (33.3%) presented with altered bowel habits, 12 (20%) presented with abdominal pain, 8 (13.3%) presented with Obstruction, 6 (10 %) presented with Loss of appetite, and 6(10%) presented with Weight loss. In our study rectal bleeding was the most common complaint with which carcinoma rectum patients were represented.
- 4) Examination findings in our present study was pallor was seen in 36 (60%), edema in 10 (16.7 %), abdomen tenderness in 7 (11.7%), hepatomegaly in 2 (3.3%), palpable per rectal growth in 48 (80%) and ascites in 2 (3.3%). In our study palpable rectal growth was present in majority of the patients (80%).
- 5) Personal history of our study was 49(81.7%) patients were on mixed dietary habits, 11 (18.3%) were on vegetarian diet, 50 (83.3%) patients were smokers, 46 (76.7%) were alcohol regularly consuming alcohol. Of all the patients 34 (56.7%) of the patients were obese with BMI >30.
- 6) Histological picture of 60 carcinoma patients of our study was 14 (23.3%) patients showed well differentiated adenocarcinoma, 29 (48.3%) patients showed moderately differentiated adenocarcinoma, 8 (16.7%) patients showed poorly differentiated adenocarcinoma and 6(11.7%) patients showed signet ring cell carcinoma. In our study moderately differentiated adenocarcinoma is the most frequent histology.

A Study with more number of cases is required for better understanding and management of the disease.

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