

## A Retrospective Study of Colorectal Carcinoma in central India

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**Background:** Colorectal cancer (CRC) is a disease with a major worldwide burden. It is the fourth most frequently diagnosed malignancy in both sexes with almost 1 million people developing CRC annually. CRC is the third most common cause of cancer death in the world(1). The present study of colorectal carcinoma helps us to determine the disease on clinical presentation, histopathological typing & grading; to know surgical procedures & other therapeutic options as well as the outcome of the disease.

**Methods:-** This is a retrospective Study of 70 cases of colorectal carcinoma analysing incidence, clinicopathological features and outcome after different therapies including surgery, radiotherapy and chemotherapy.

**Results:** In this retrospective study we found that incidence of colorectal carcinoma is more between 40-60 yrs of age with male predominance; lymph node metastasis is more than metastasis in any other sites. CT scan can diagnose lymphatic metastasis and infiltration in surrounding tissue more accurately. Percentage of sphincter saving procedure were low in rectal malignancies in our study.

**Conclusion:** The database of our retrospective study regarding age & sex incidence, clinicopathological features and therapeutic outcome was comparable to other studies in various literatures.

### I. Introduction

This is an exciting time in medicine. The pace of discovery is accelerating, and new observations are finding more rapid and practical applications than ever before.(2). Colorectal cancer (CRC) is the third most common cancer in men (663,000 cases, 10.0% of the total cancers) and the second in women (570,000 cases, 9.4% of the total cases) worldwide [3]. Although roughly 7% of cases occur in patients younger than 50 years of age, the incidence of colon cancer in the general population increases exponentially after the fifth decade of life(4). The male to female ratio is 5:3 . In early years of the present century, these malignancies were neglected because disease was less common than now: with less tools for diagnosis , less life expectancy and general unawareness of the fact that malignancy may occur in younger age group. There has been a decline from previous year in deaths as well as in new cases(5).

Aim of the present study was to explore the disease on clinical presentation, histopathological typing & grading , to determine the nature of surgical procedure & other therapeutic options and to know the outcome of the disease.

### II. Patients And Methods

In this retrospective study of colorectal carcinoma the analysis of incidence, clinicopathological features and outcome after different therapies of 70 cases was done, from the available case records. Patients underwent surgery, RT or CT in the department of surgery, G.R. Medical College & J.A. Group of Hospital Gwalior and Cancer Hospital and Research Institute Gwalior,(CHRJ, Gwalior) during the year Jan.2001 to 2006. The patients were investigated & treated according to the protocols.

Case records were analysed on the basis of demographic data with special reference to age, sex and incidence. All patients were examined for their presentation, course of disease, various examination & investigations. These records were also analysed for surgical interventions & outcome.

Over all 70 patients of colorectal malignancies were included in this study. The detailed records were obtained from MRD section. The patients were also contacted by post or by telephone as and when necessary for their follow-up. All the data were analysed using the necessary statistical calculations, the result were then presented.

### III. Result

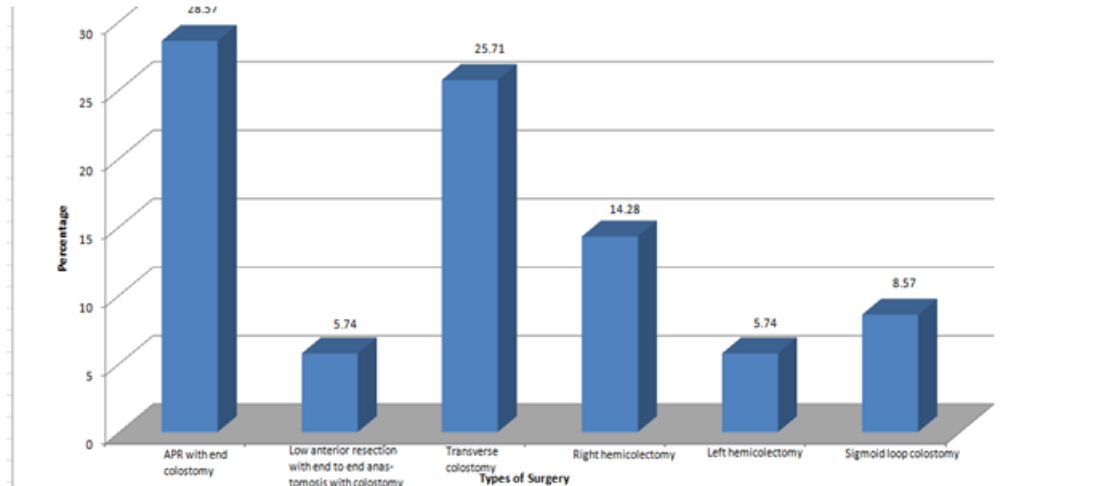
This study included 70 cases of colorectal malignancies.

**Age Distribution – Table - Showing Age Distribution Of Patients.**

| Age group (years) | No of Patients | Percentage |
|-------------------|----------------|------------|
| 0-10              | 2              | 2.85%      |
| 11-20             | 0              | 0%         |
| 21-30             | 12             | 17.14%     |
| 31-40             | 14             | 20%        |
| 41-50             | 14             | 20%        |
| 51-60             | 18             | 25.71%     |
| 61-70             | 4              | 5.71%      |
| 71-80             | 6              | 8.87%      |

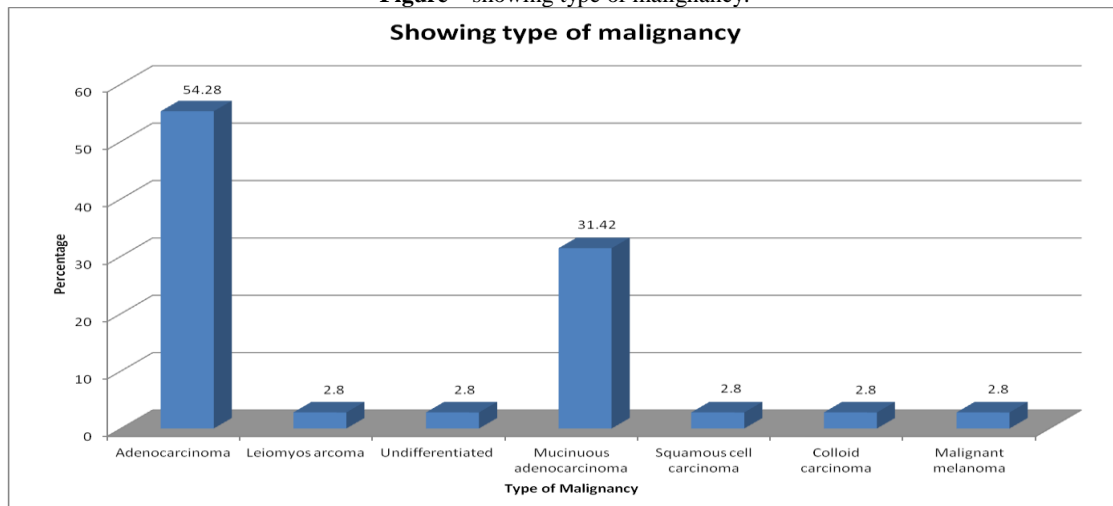
38 Male and 32 Female patients were there in our study. The common site for malignancy observed in our study is rectum (80%), the other less common were ascending colon, descending colon, sigmoid colon & caecum. Bleeding per rectum 80%, weight loss 60% ,anemia 60% and altered bowel habits 77.13 % were the presenting symptoms. All patients were subjected to biopsy or fine needle aspiration cytology and the diagnosis confirmed. Other investigation done are ultrasonography, barium enema, CT scan, CEA etc.

**Figure – Showing various procedures done.**



44 out of 70(62.8%) patients were having operable growth. Adjuvant therapy in the form of chemotherapy was given to 38(54.2%) patients and radiotherapy to 18 (25.7%)patients.

**Figure – showing type of malignancy.**



Commonest site for metastasis was regional lymph node. 8 patients had secondary deposits in liver, 2 were having deposit in anterior abdominal wall and two female were having secondary deposits in both ovaries

#### **IV. Discussion**

During the past 3 decades, the incidence of colorectal cancer was at a low level in urban and rural populations in India, in comparison with figures observed in developed countries of North America and Europe (6).Significant advances have been made in the study of colorectal cancer during the last few years. A more thorough understanding of the molecular basis for this disease, coupled with the development of new therapeutic approaches, has dramatically altered the way in which patients are managed (7). We are in a unique electronic age with access to a plethora of sources of medical information, so the vehicles we use to keep up-to-date must change as well, and this text is no different(8).

In this study (14) patients were below 30 years of age, the incidence rise with advancing age, maximum between 40-60 years of age. There were slight male predominance, 54.28% patients were male and 45.71 % were females. The lifetime risk for colorectal cancer is 1 in 18 for men and 1 in 28 for women, but its occurrence under 50 years of age is very low(9). The common site of malignancy in the present study is in rectum, and the commonest symptom in our study was bleeding per rectum . Carcinoma of the colon, particularly the right colon, is more common in women, and carcinoma of the rectum is more common in men (10). 70% of patients of the colorectal malignancies were diagnosed clinically by digital P/R examination and proctosigmoidoscopy. This is confirmed by biopsy and histopathological examination. Other investigations

were barium enema, USG abdomen, CTScan, CEA and Xray chest. Lymph node metastasis (17.14 %) was better diagnosed on CT scan. MRI may be useful for this purpose as well. PET/CT scans are useful for detecting recurrences and metastatic disease but are probably not necessary as part of the routine initial evaluation(11).

**Stage :** In case of colorectal malignancies ,the stage wise distribution of the disease ( in percentage ) observed by authors is as follows.

**Table showing stage distribution in various studies.**

| Authors         | Year | Dukes A | Dukes B | Dukes C |
|-----------------|------|---------|---------|---------|
| Dukes           | 1940 | 15%     | 35%     | 50%     |
| Astler & Coller | 1954 | 0.3%    | 60.2%   | 39.5%   |
| Federico et al  | 1999 | 25.42%  | 28.81%  | 37.29%  |
| Lawrence et al  | 1999 | 0.4%    | 32.71%  | 44.6%   |

The commonest histopathological variety was adenocarcinoma 54.28 % while mucinous adenocarcinoma variety was 31.42% The most common colon cancer cell type is [adenocarcinoma](#) which accounts for 98% of cases.<sup>1</sup> Other, rarer types include [lymphoma](#) and [squamous cell carcinoma](#)(12).The commonest site for metastasis was in the surrounding regional lymph node draining that area are found in 17.14 % of cases. 44 out of 70 patients (62.85%) of colorectal malignancies were having operable growth & 22 out of 70 patients (31.42%) were inoperable following chart shows operability of rectal tumours found in different studies.

| Authors          | Year        | Percentage of operability |
|------------------|-------------|---------------------------|
| Eisenberg et al  | 1967        | 72%                       |
| Maden & Kandalaf | 1971        | 67.53%                    |
| Lock et al       | 1993        | 86.25%                    |
| Present study    | 2001 – 2006 | 62.85%                    |

Thus percentage of operable growths in our study was less as compared to other series indicating advanced stage disease due to illiteracy, social bindings, less diagnostic tools available, lack of surveillance etc .More than half of colorectal adenocarcinomas are still diagnosed only when the disease involves regional or distant structures[13].

Patients with Dukes A stage did not receive postoperative chemotherapy and were advised regular follow up. 38 patients received post operative chemotherapy. 18 patients were given radiotherapy. New evidence suggests a role for anti-inflammatory drugs in the treatment and prevention of colon and rectal cancers(14). Out of 70 patients over all follow-up of 42 patients (60%) was done. 6 patients died after surgery due to metastatic disease, other were free of disease.

**Current recommendations are:** CEA every 2 months for 2 years then every 4 months for 2 years then annually, colonoscopy within the first 2-3 months then annually, LFTs every 3 months for 2 years then every 6 months for 2 years then annually and CXR every 6 months for 3 years then annually(15).

## V. Conclusion

The management of colorectal cancer has progressed over the past few decades because of many advances, including those in genetics, pathology, imaging, medical oncology, radiation oncology, and surgery(16). Undoubtedly, the management of patients afflicted with colorectal cancer will evolve as advances continue to be made in the multiple disciplines that contribute to the diagnosis and treatment of colorectal cancer(17).

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