



## TRENDS OF COLORECTAL CANCER IN CENTRAL INDIA: AN INSTITUTIONAL REVIEW

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**ABSTRACT** **INTRODUCTION:** Carcinoma colon in India has a lower incidence compared to the cases in western world. The presentations and clinical profile of colorectal cancer also varies from its western counterpart. We aim to study the demographics and trends of the colorectal cancer cases presented in our institute. **MATERIALS AND METHODS:** All the patients who presented with colorectal cancer in the department of Surgical Oncology in SAIMS, Indore and who underwent surgery for the same from October 2016 to September 2020 was taken into the study. **CONCLUSION:** Colorectal cancer in India varies in certain aspects compared to western population. And the incidence of colorectal cancer in India is slowly rising. It is time to design effective screening programme in suspected population.

**KEYWORDS :** Colorectal Cancer, India, Demographics, Incidence

### INTRODUCTION

Carcinoma colon has been considered a cancer of the developed countries. But its incidence in India is steadily increasing. Studies has shown that colorectal carcinoma in India is slightly different compared to the cases in western world in the aspects of demographics and pathology. Our study aims to look into the demographics of colorectal carcinoma cases in central India which presented in our institute.

### MATERIALS AND METHODS

**Ethics:** We declare that the study conducted was in accordance with the ethical standards of the responsible committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 2000. Institution ethics committee approval was obtained. Informed consent from all the participants was obtained and all the participants was above the age of 7 years. Confidentiality of the participants was ensured throughout the study.

### Selection and description of participants

A descriptive retrospective analysis was done of all patients who were treated for colorectal cancer from October 2016 till September 2020 at Sri Aurobindo Institute of Medical Sciences and Post Graduate Institute, Indore, a tertiary cancer care center. Various patient demographics like age group, sex, operability at presentation, procedure done, anatomical location of cancer, final histopathology was taken into account.

### Statistics

Total 79 patients who underwent surgery for colorectal cancer were studied. Among these patients, 28 patients (35.44%) underwent palliative surgery and 51 patients (64.55%) underwent curative surgery. Among the 51 patients who underwent curative surgery, 23 (45.09%) patients had carcinoma colon, 22 patients (43.13%) had carcinoma rectum, 2 (3.9%) patients had ileocecal cancer and 4 patients (7.8%) had rectosigmoid cancer. 1 patient was in the age group of 20 to 29 years. 9 patients were in the age group of 30 to 39 years. 15 patients were in the age group of 40 to 49 years, 15 patients were in the age group of 50 to 59 years, and 6 patients were in 60 to 69 years age group, and 5 patients in 70 to 79 years age group. 20 patients (39.21%) were female and 31 patients (60.78%) were males. Out of the total patients, 46 received no prior treatment whereas 5 patients received neoadjuvant treatment. 44 patients (86.27%) had adenocarcinoma and among them, 6 (11.76%) were mucinous adenocarcinoma. One patient had non-Hodgkin's lymphoma and 3 patients (5.88%) had signet ring cell tumor. In 3 patients, there was no residual viable tumor after resection. All these three were adenocarcinoma in preoperative biopsy. Adenocarcinoma was most common in the age group of 40 – 49 (15). Mucinous adenocarcinoma was common in 40 to 59 years age and signet cell tumor in age 30 to 39 years. 28 patients presented with inoperable disease and underwent palliative procedure. Among the patients who underwent palliative procedure in the form of bypass or

diverting stoma creation, 16 (57.14%) were male and 12 (42.85%) were females. Median age of presentation of operable cases was 42 years. Median age of presentation of inoperable cases was 45 years. Most common age group of presentation was in the group of 40 to 49 years age group with 11 patients. 14 patients had carcinoma rectum and 8 patients had carcinoma colon and 6 patients had rectosigmoid disease. Out of the total 79 patients, 18 cases were in year 2016 -17, 17 patients presented in year 2017 – 18, 22 patients presented in year 2018 – 19 and 22 patients presented in year 2019 – 20.

### DISCUSSION

The symptoms of colorectal cancer are altered bowel habits, abdominal pain, vomiting, weight loss, bleeding per rectum, abdominal distension, abdominal lump etc. It can present with acute or subacute intestinal obstruction also. Thorough history, clinical examination including a digital rectal examination, imaging studies like contrast CT abdomen, contrast MRI pelvis, endorectal ultrasound, lower gastro intestinal endoscopy with biopsy, routine blood investigations including serum CEA (Carcino Embryonic Antigen) all help in diagnosing and staging the disease and assess operability. Palliative procedures include various bypass surgeries and ostomies to alleviate the symptoms of intestinal obstruction. All over the world, colorectal cancer is having 1.3 million new cases each year. In India, the annual incidence of carcinoma colon is 4.4 per 100000 population and carcinoma rectum is 4.1 per 100000 population among men. In women, it is 3.9 per 100000 population. There is a 6.5% rise in incidence of colon cancer in men and 10.4 % rise in females. Colorectal carcinoma in Indian population is low compared to the western population.

It is also low in the migrated Indian population in the USA. There are studies suggesting that colorectal cancers occur in the younger age group in India as compared to the west. In the USA, the median age of diagnosis of colon cancer is 68 in males and 72 in females. And for rectal cancer, it is 63 for both males and females. Worldwide, colorectal cancer is higher among males compared to females. In the US, more than 90% of colorectal cancer is adenocarcinoma in histology and most of them are well differentiated adenocarcinomas. The overall 5-year survival of colorectal cancer is 63%, and for early localized disease, it is 90% and for locally advanced disease, it is 71%. Studies have shown that screening tests will reduce the risk of death by 67% in colorectal cancer patients.

### CONCLUSION

Colorectal cancers are highly curable if they are detected early and hence screening tests have a major role in the prevention of cancer related deaths. Since the incidence of colorectal cancers are on the rise in India, it is perhaps time to incorporate a good screening programme for the suspected age group by the government.

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