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Study of Clinical Features, Staging, Investigations and Management of Colorectal Carcinoma

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Abstract: *This is prospective study on clinical features, staging, investigations and management of colorectal carcinoma. In this study we tried to determine that what will be the common clinical manifestation while presenting here at our institute and patient would be having which stage and various methods of investigations to investigate carcinoma properly and to give appropriate stage and to manage these patient accordingly. This randomized observational prospective cohort study has been carried out in 25 cases of colorectal carcinoma, admitted to department of general surgery in pdu medical college&hospital, Rajkot from october2017 to till april 2019. All patients were examined clinically and their history and examinations and neccesory imaging and blood investigations were done.*

Hence forth the above study suggest that common presenting feature in colon carcinoma was abdominal pain and most common associated risk factor was smoking and stage 3 was most common presentation and most of the patints were treated by either right or left sided hemicolectomy.

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I. Introduction

Colorectal cancer (CRC), also referred to as cancer of the colon or rectum is one of the major causes of cancer deaths worldwide. Global Cancer Statistics in 2016, stated that colorectal cancer is the second most common cancer in females after breast cancer and third in males after lung and prostate cancer.Every year globaly over 1.2 million new cases and 608,700 deaths estimated to have occurred.Incidence and mortality rates are slightly higher in males than in females (~1.4-1). Common symptoms include abdominal pain, rectal bleeding, altered bowel habits, and involuntary weight loss. Symptoms depend on cancer location, cancer size, and presence of metastases. The survival of colorectal cancer greatly rely on the stage of the disease at diagnosis and typically ranges from a 90% 5-year survival rate for cancers detected at the localized stage; 70% for regional; to 10% for people diagnosed for distant metastatic cancer. Approximately 80% of patients now survive the first year after diagnosis, and approximately 62% survive 5 years and more. Besides disease-free and overall survival time, quality of life has become an important outcome measure for colorectal cancer patients. Updated knowledge on colorectal cancer incidence and excellent diagnostic modalities would ultimately improve public health strategies in the management of the colorectal carcinoma.

II. Material and methods

This randomized observational prospective cohort study has been carried out in 25 cases of colorectal carcinoma, admitted to department of general surgery in P.D.U Medical College & Hospital , Rajkot from October 2017 to till April 2019. All the patients were examined clinically and their history and examination were filled in proforma. Patient were selected according inclusion and exclusion criteria.

Study design: Prospective cohort study
Study location:PDU Medical College & Civil Hospital, Rajkot, Gujarat, India
Study duration:1.5 years
Sample size:25 patients
Sample size calculation:we have done this study on total of 25 patients of colorectal carcinoma which were operated for it.
Subjects and selection method: The study population was drawn from consecutive patients of colorectal carcinoma, who presented to PanditDindayalUpadhyay Medical College & Civil Hospital, Rajkot, Gujarat, who underwent surgical intervention for it between October,2017 to April,2019.

Inclusion criteria:
1. All patients admitted to Rajkot civil hospital with colorectal carcinoma.
2. Patient's age >12 years
3. Patients posted for laparotomy, either elective or emergency.
4. Pregnant women.
5. Patients with serious renal and liver disease.
6. Patients with colorectal cancer and getting neoadjuvant therapy.

Exclusion criteria:
1. Patient's age <12 years.

Procedure methodology:
After taking proper consent and counseling patients were evaluated clinically post laparotomy fir vitals, respiratory complains, ryle's tube output and drain output measurement, abdominal distention, resovling of complains that were present at time of admission.
Patints were monitored closely and staging was done according to histopathological reports and then post operative chemo or radiotherapy was planned accordingly.

III. Result

This study was carried out at P.D.U medical college & hospital Rajkot, Gujarat, India. It included 25cases of colorectal cancer which were operated with explolatory laparotomy between October 2017 to April 2019.

Table no1: case distribution according to age

AGE(YRS)	TOTAL NO. OF PATIENTS	PERCENTAGES
21-40	3	12%
41-60	14	56%
61-80	8	32%
TOTAL	25	100

In my study it revealed That the maximum number of patients were in the 41-60 years age group, i.e., 14 and the youngest patient was 23years old and the oldest one being 75 years old. The mean age of the patients was 55.32 years.

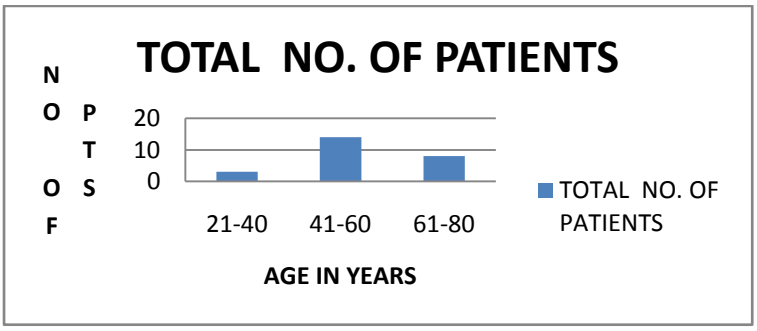


Table no2:case distribution according to sex

SEX	TOTAL NO. OF PATIENTS	PERCENTAGES
Male	14	56%
Female	11	44%
TOTAL	25	100

In my study it revealed that male patients(14) have higher chances of incidence of colorectal carcinoma than female patients(11).

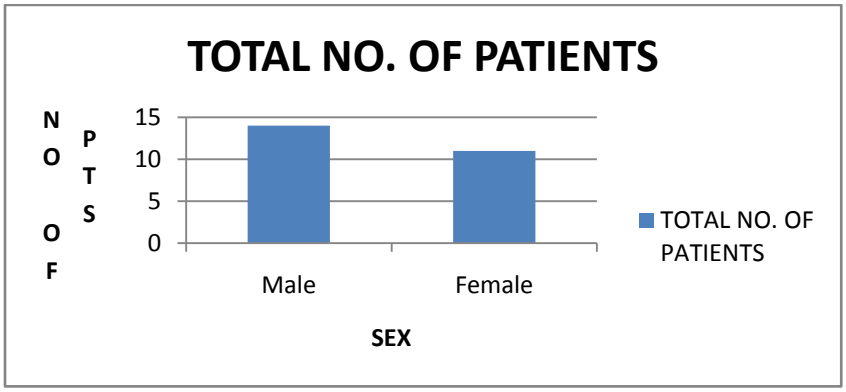


Table no3:case distribution according to the diagnosis

DIAGNOSIS	NO.OF CASES	PERCENTAGE
Caecal Carcinoma	2	8%
Ascending Colon Carcinoma	5	20%
Descending Colon Carcinoma	7	28%
Sigmoid Colon Carcinoma	8	32%
Rectal Carcinoma	3	12%
TOTAL	25	100

In my study it suggested that majority of the patients were having sigmoid colon carcinoma(8) and and descending colon carcinoma(7) was also that much common. Other then that mostly patients were having ascending(5) and rectal carcinoma(3) and only few patients were having caecal carcinoma(2).

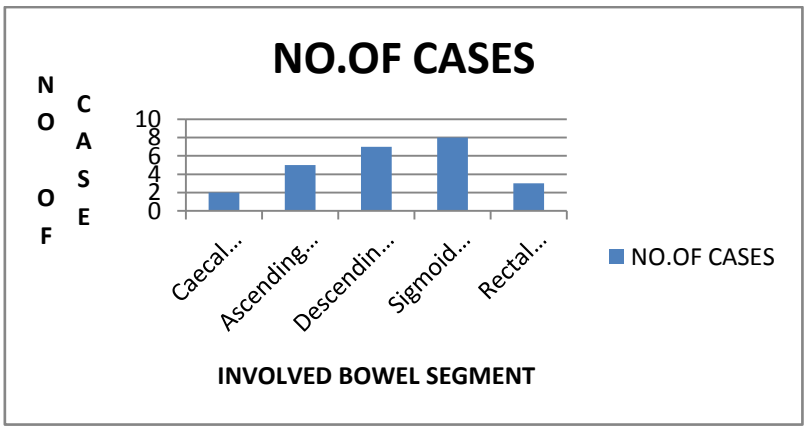


Table no4:assosciated risk factors

RISK FACTORS	NO. OF PATIENTS	PERCENTAGES
Smoking	9	36%
Alcohol	5	20%
Obesity	4	16%
None	7	28%
TOTAL	25	100

In my study it revealed that most common assosciated risk factor for colorectal carcinoma was smoking(36%), and alcohol(20%) and obesity(16%) were slightly less common than smoking and there were many patients(28%) who had no any risk factors present.

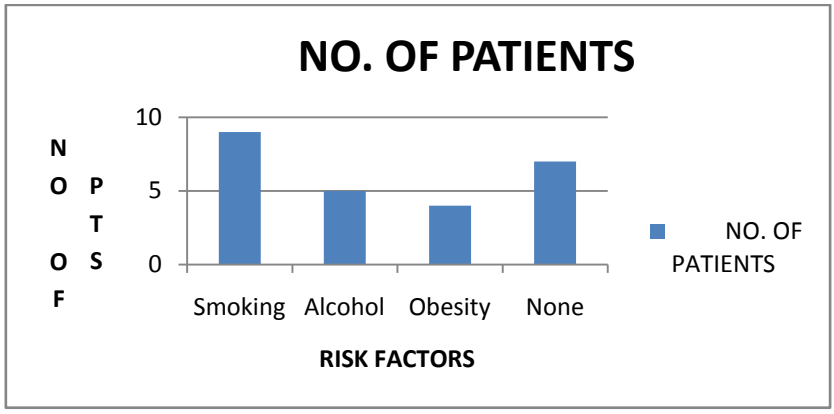


Table no5:according to clinical features:

CLINICAL FEATURES	NO. OF PATIENTS	PERCENTAGES
Abdominal pain	22	88%
Vomiting	21	84%
Bleeding PR	7	28%
Distension	15	60%
Constipation	10	40%

In my study it revealed that most common presenting complain was abdominal pain(88%) and vomiting(84%) was second most common presenting complain and other common complain was distension(60%), constipation(40%) and bleeding PR(28%) were slightly less common than rest of the complains.

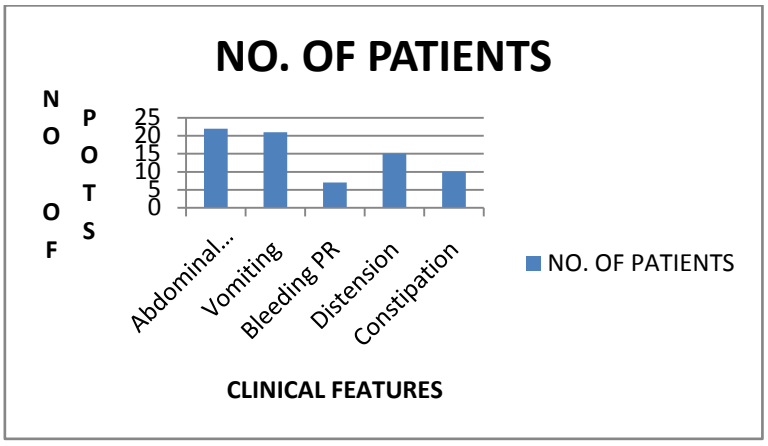


Table no6: according to staging

STAGGING	NO. OF PATIENTS	PERCENTAGES
Stage-1	0	0%
Stage-2	7	28%
Stage-3	13	52%
Stage-4	5	20%
TOTAL	25	100

In my study it revealed that mostly patients were presented here during 3rdstaging(52%) of colorectal carcinoma and then less common presenting stages were 2nd& 4th and not a single patient was presented during 1st stage.

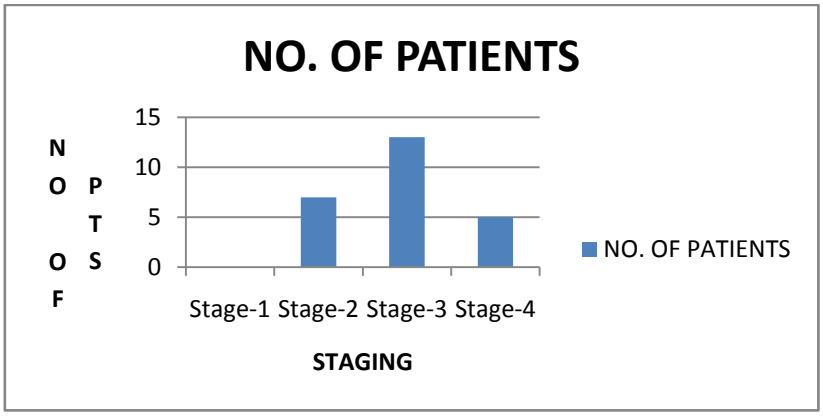


Table no7:according to management procedure

MANAGEMENT PROCEDURE	NO OF PATIENT	PERCENTAGE
Right Hemicolectomy	7	28%
Left Hemicolectomy	9	36%
Sigmoid Colectomy	6	24%
Diversion Colostomy	1	4%
Abdominoperineal Resection	2	8%
TOTAL	25	100

In my study it revealed that mostly patients were managed with left sided hemicolectomy(36%), followed by right sided hemicolectomy(28%) and sigmoid colectomy(24%) and 8% of patients were managed with abdominoperineal resection and small amount of patients were treated with diversion colostomy(4%).

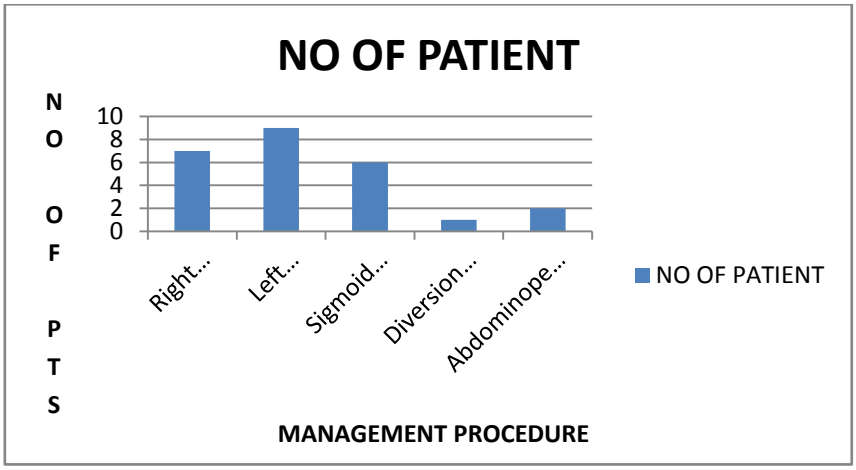
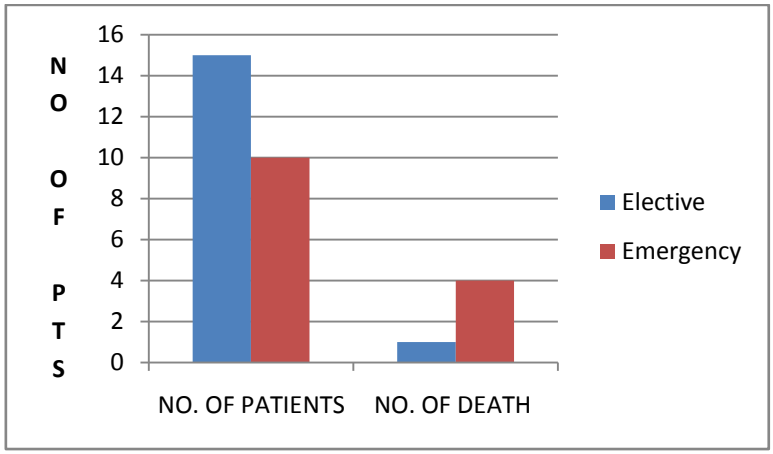


Table no8:according to death rate

PROCEDURE	NO. OF PATIENTS	NO. OF DEATH	PERCENTAGES
Elective	15	1	6%
Emergency	10	4	40%

In my study it revealed that 40% of patients died after emergency surgery, this rate was way more higher than death after elective surgery(6%).



IV. Discussion

In this prospective study where 25 records of patients with CRC at PDUMCH were examined for two-year period. No statistical significant differences between age, sex and ethnicity with regard to occurrence of cancer tumors and staging of tumor were found. The overall men to women ratio for CRC was 1.27:1, the corresponding distribution worldwide is 1.4:1, and for China 1.32:1 and Nepal 1.8:1. However, it could not be assumed that men being more diseased with CRC than women is a representative result throughout the whole of India, since our material consist of a rather limited number of patients in a single hospital. Though results from other Indian hospitals also show a high men to women ratio.

In comparison with karolinska institute where mean age of presentation was 53.45 years while in our study it was 55.32 years of age. So we can say that it was mostly similar and no any significamt statistical difference was found.

In our study it shows that most affected sex was male and in karolinska institute study it was the same result. While comparing clinical feature it shows that abdominal pain was the most common than any other features and in karolinska institute study it also shows that abdominal pain was most common feature in comparison to others.

In our study it shows that most common presenting stage of colorectal carcinoma was stage 3 while in karolinska institute study it was stage 2. Which may be due to advanced imaging or early presentation of patients with the symptoms suggestive of carcinoma. While comparing the risk factors in our study it was smoking while in karolinska institute study it was dietary factors.

Family history of CRC was the strongest predictor in the younger patients compared to middle aged and elderly patients. Patients delay may be one cause leading to diagnosis at a later stage contributing to lessened prospects for cure. At PDUMCH 80% (20/25 patients) of the surgical procedures were curative. This result might be difficult to compare with other hospitals not equal in standards and organization. Increased awareness about cancerous diseases could help limit patients delay and contribute to better prognosis.

Differences in environmental factors can be a more western life style with among other changed dietary habits, higher alcohol intake and tobacco smoking, and less physical activity. Curcumin in turmeric, a common spice in Indian cooking, has on the other hand been shown to have a preventative effect on colon cancer genesis. The use of turmeric and a high intake of starch within Indian food may attribute to the low level of incidence of colon cancer in India. Since there were no specific limits in patient area uptake, there could be no valid number of the population exposed to risk of CRC to relate our collected data with, this limiting the results of the study to be a descriptive epidemiology study of a number of cases, and no statistics on occurrence could be calculated.

Early CRC may have significant symptoms comparable to advanced CRC, to improve survival early detection is important. However, the symptoms are highly unspecific, various infectious diseases are frequent in India, and symptoms and signs from a CRC can in some cases be interpreted as those of a non-cancerous origin. Broad-spectrum antibiotics can be bought from pharmacies without prescription before seeking medical care and pass through proper examination, causing patient's delay. In addition, according to different traditions, some minor ethnicity there is still custom to seek help from a holy person, instead or before seeking medical care. Patients delay and poor knowledge about cancerous diseases, are therefore important factors to acknowledge.

V. Conclusion

This study confirms an increasing number of CRC at PDUMCH. In contrast to other studies there was a lower occurrence of CRC among patients under 40 years of age (162%). The overall male to female ratio was 1.27:1, following the worldwide trend. The most common symptom among patients with colorectal cancer was

pain in abdomen. The remarkable high proportion of advanced stage of presentation account for poor prognosis. Smoking, urbanization and change of living-habits may have had an affect on the increasing level of CRC among the population in Rajkot. To further investigate this is necessary. Another focus should be on genetic impact and environmental risk factors. The limited number of patients require further studies with larger materials taking account more regions in India. Introducing systematic nationwide statistics on cancer in the future would be valuable for studies on cancer epidemiology in India. Mostly patients of colorectal carcinoma were investigated with contrast enhanced CT and it was most sensitive and specific investigation in this study. Majority of the patients were managed with definitive surgery like left & right hemicolectomy and sigmoid colectomy and only small portion of patients were managed with diversion colostomy.In our study patients folloup was done upto 6 months for complications like wound infection, dehiscence, paralytic ileus and recurrence and majority of patients were having only wound infection.

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