

Comprehensive Study of Colorectal Malignancies

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Abstract: Colorectal cancer is a dynamically changing disease entity due to multifactorial reasons. The incidence of cancers is much higher in western countries, suggesting environmental and genetic factors. The frequency has been increasing in our country over last few years, possibly related to changing dietary social habits. In this comprehensive study about colorectal malignancies etiopathogenesis, clinical presentation and various treatment modalities were analysed so that patients must be educated about the symptom and etiology of colorectal malignancy and importance of screening in those with family history, in order to get earlier treatment and better outcome.

Keywords: Colorectal cancer, malignancy, etiopathogenesis.

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I. Introduction

Colorectal cancers remain one of the most dynamic fields in oncology. Clinically colorectal cancer is a diverse disease requiring individually based treatment strategies. The early detection of the disease is of paramount important in its outcome few topics in cancer research have engendered more excitement, the recent discovery of identifiable genetic defect in patients with inherited as well as sporadic form of colorectal cancer. The cellular etiology of cancer was first described by Johannes Peter Muller in 1828. Surgical resection remains the main stay of treatment for colorectal cancers. Radio therapy and chemotherapy are used as adjuvant therapeutic options. Trunbull at Cleveland clinic recommended a no touch technique in which vascular and mesenteric division was first undertaken thereby isolating the tumor. Colorectal surgery has advanced a lot with introduction of GIA stapler especially for sphincter saving procedure for carcinoma rectum with advent of Laparoscopy. Colorectal cancer though most common in the west are on the increase in our country for the past decade. There are few studies about colorectal malignancies in south Indian populations. This study aims to study about colorectal malignancies and various treatment modalities in south Indian population.

II. Aim Of Study

To study the demographic pattern, etiopathogenesis, clinical presentation, treatment modalities, adjuvant therapy and follow up of colorectal carcinoma in Govt. Rajaji Hospital, Madurai.

III. Materials And Methods

All the Cases of colorectal carcinomas reported for the period of 24 months in Govt. Rajaji Hospital, Madurai were included in this Study. After getting ethical committee approval a total of 45 cases who fulfilled the inclusion were taken. Detailed history was elicited from each patient with special preferences to family history habitations and early symptomatology. Thorough physical examination was performed for evaluation of general condition, detection of signs and per rectal examination for all patients. Thorough lab investigations were done in every patient except those who presented emergencies underwent contrast radiographic studies. Colonoscopic evaluation and CT abdomen done in selected cases. Chest x-rays taken for all patients for preoperative evaluation as well as detection of secondaries. Liver function test done as a routine test to assess nutritional status of patient. For all possible cases, preoperative biopsy taken via proctoscopic, colonoscopic guidance and histologic type made out before planning treatment. All cases underwent either curative or palliative treatment as per TNM staging. Detailed histopathological reports were available for staging tumor and assessing the grade differentiation.

IV. Observation And Discussion

In this series of 45 cases of colorectal carcinomas the following observations were made. Most of the case are from middle and older age groups with sex incidence of M:F 1.5:1 and 1:1 in rectal carcinomas. Maximum incidence was in 5th decade.

SEX INCIDENCE

Male	Female
28	17

Even though the majority were illiterate and not able to specify the exact dietary constituents they have taken, most patients gave history of consumption of fat fibre intake in moderate amount. 34 patients out of 45 were using tobacco in form or other. All the male except one were regular smokers, smokes beedi, cigarettes, 11 out of 18 female patients were using tobacco in the form of tobacco and pan masala.

Carcinoma rectum accounted for majority of cases (21 cases). The distribution of tumors in other sites in decreasing order of frequency were as below: Ascending colon 8 cases, caecum 5 cases **and** hepatic flexure 2 cases from right side. 6 cases from sigmoid colon, 2 from anal canal and one case from splenic flexure accounting to 9 cases from left side. 15 out of 45 were right sided lesions.

SITE INCIDENCE

Right	Left
15	30

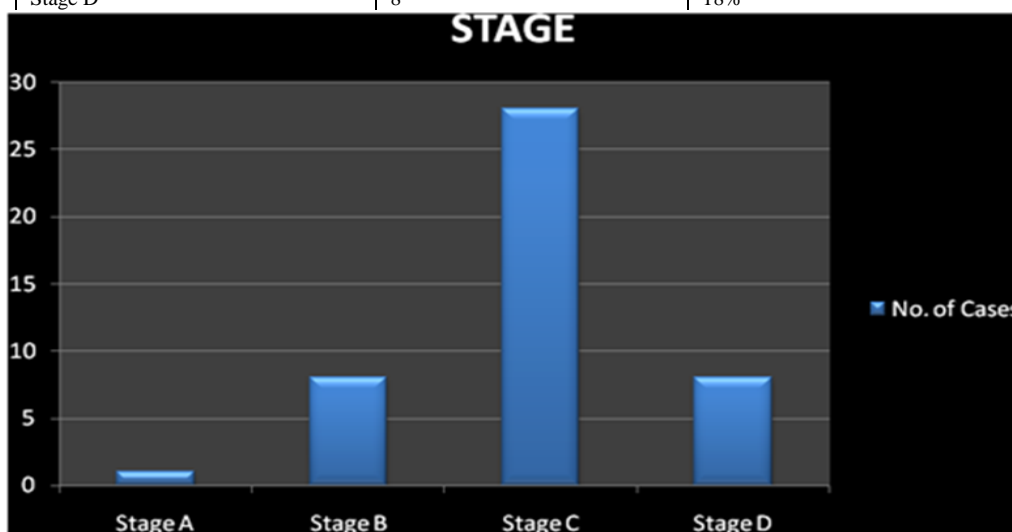
Majority of patients had symptoms for sometimes tended to ignore them and presented at their late stages. 7 cases presented in this series as acute emergencies (16%) as intestinal obstruction. Most of the right sided tumors had symptoms of altered bowel habits, anemia and lump abdomen. One case presented with mucus discharge. Majority of bleeding per rectum was seen in rectum and sigmoid colon cancers. One patient presented late with enterovesical and enterocutaneous fistula. Two patients of rectal carcinoma advanced stage presented with pain, 3 patients with secondaries liver.

Age incidence

Range	Male	Female	Total	Percentage
10- 20	1	-	1	2%
21 - 30	3	2	5	11%
31 - 40	4	3	7	16%
41 - 50	5	5	10	22%
51 - 60	10	7	17	38%
61 - 70	2	-	2	4%
> 70	3	-	3	7%

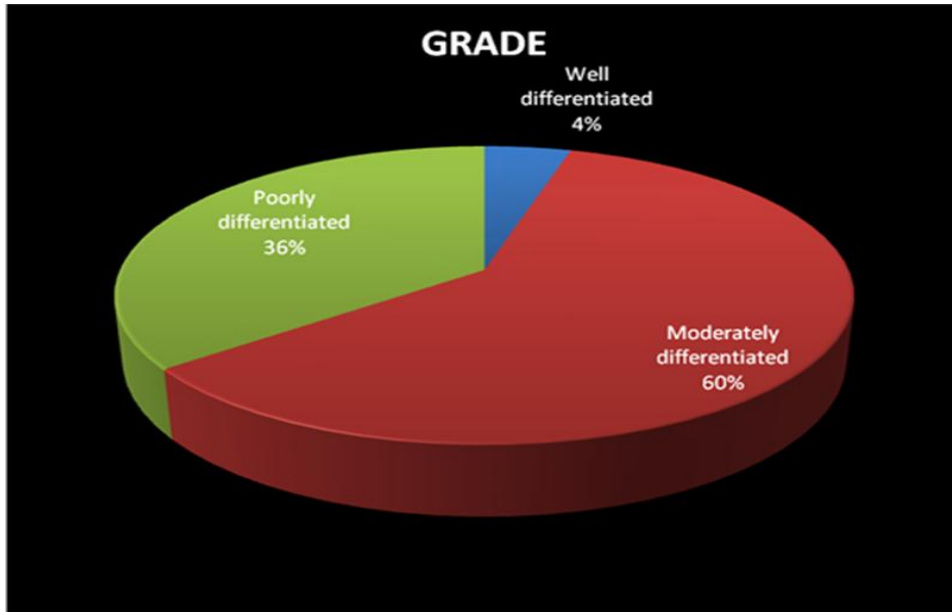
STAGING

Stage	No. of Cases	Percentage
Stage A	1	2%
Stage B	8	18%
Stage C	28	62%
Stage D	8	18%



GRADING

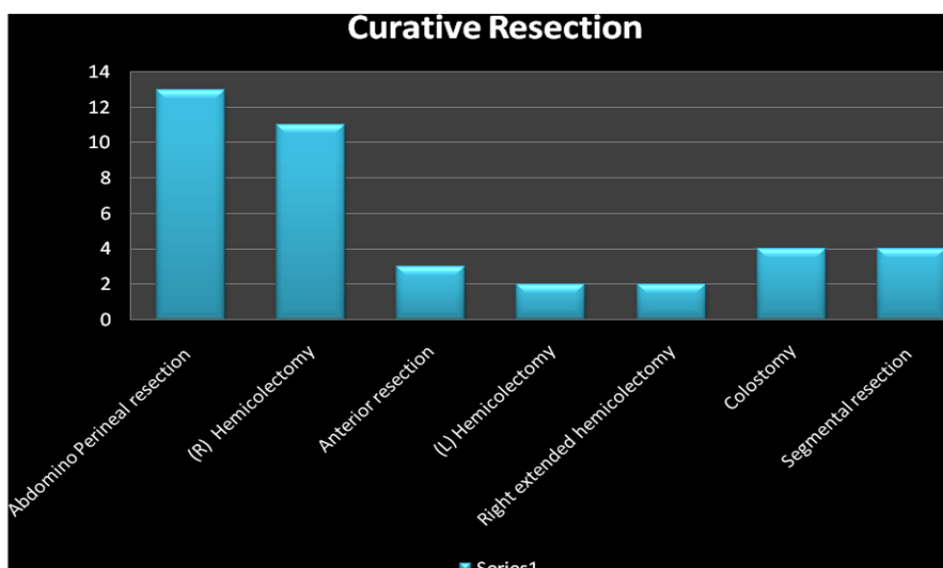
Grading	No. of Cases	Percentage
Well differentiated	2	4%
Moderately differentiated	27	60%
Poorly differentiated	16	36%



Abdominal lump was present in most of right sided cancers and sigmoid growth and in one case of hepatic flexure growth. 5 patients present with symptoms of metastasis and disseminated disease. Diagnosis in this study was not a problem because most patients presented at later stage right sided lesions presented mass carcinoma and left sided growth. Presented with mass or obstruction and most of rectal growth is palpated on per rectal examination. Most of the rectosigmoid and left sided growth were annular and ulceration with infiltration type. One sigmoid growth showed infiltration into bladder and overlying skin. Majority of right sided growth were polypoidal or cauliflower like growth. Only one case presented in Duke stage A, and 9 cases in stage B (18%) and 31 cases in stage C (62%) and 9 cases in stage D (18%).

Surgical resection is in the form of either curative, palliative (or) palliative bypass / colostomy was attempted on all patients. 8 cases presented as acute abdominal emergencies. Among which 4 cases underwent Hartmann's procedure and temporary colostomy. 6 months later after assessing extent of the lesions and complete preparation. 3 cases undergone re-anastomosis by stapler technique. 2 cases expired. 2 cases did not turn up for follow up. 37 cases were treated with elective surgery in whom 13 rectal carcinoma underwent curative APR and 3 cases treated with anterior resection with coloanal anastomosis among which 1 case had undergone, Hartmann's procedure. 11 cases underwent right hemicolectomy, 2 cases underwent left hemicolectomy, 2 cases right extended hemicolectomy.

Most cases are advised adjuvant chemotherapy normally 5 fluorouracil and calcium folinate. A minimum 6 cycles were given, with additional 4 cycles for partial response patients. Radiotherapy was given to one patient preoperatively and later underwent Hartmann's procedure.



FOLLOW UP

30% of patient did not come for regular follow up. Two patient had recurrence, one in the abdominal wound and expired, other at the anastamotic site for which subtotal colectomy was done. 3 patient had local recurrence after APR surgery. 25 patient had regular follow up with repeat USG and colonoscope and basic investigation being normal.

V. CONCLUSION

Incidence of colorectal carcinoma is on the increase in the past few years. There is no definitive evidence to say that diet rich in fat is risk factor. Commonest age group of colorectal carcinoma was 5th to 6th decade, (middle age and elderly age). The incidence was slightly higher in male M:F is 1.6:1. Carcinoma rectum was most common site of large bowel in this study (46%). There is also an increase incidence on the right side of colon (34%). More patient presented to us with advanced stage considering bleeding PR and altered bowel habits as hemorrhoids, as it is known by that only 2% of patient presented in Dukes Stage A. 16% of patient presented with acute emergency in the form of intestinal obstruction. Surgery is the main modality of treatment which is palliative or curative. To conclude any patient of middle and elderly age group who presenting with bleeding PR and altered bowel habits should be investigated thoroughly with per rectal, proctoscopic or sigmoidoscopic examination. Patient presenting with advanced stage had poor prognosis. Hence patients must be educated about the symptom and etiology of colorectal malignancy and importance of screening in those with family history, in order to get earlier treatment and better outcome for both the surgeon and patient alike.

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