

# Rectal Cancer a Rare Presentation in 18-Year-Old Male Patient: A Case Report.

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## ABSTRACT

Colorectal cancer [CRC] generally presents in adults > 50 years of age, it is relatively uncommon for these cancers to present in adolescents. Moreover, the presentation is of advanced stage, with poor outcome in younger age groups. Due to non-specific symptoms and relative rarity in children and adolescents high degree of suspicion is required in managing these patients. As the majority of these cases are sporadic in origin and due to limited knowledge of molecular pathogenesis, screening guidelines are yet to be defined. We here report a case of 18-year male that presented with per rectal bleed and mass felt on digital rectal examination with no genetic predisposition. Biopsy confirmed it to be a mucinous adenocarcinoma. The patient was managed by Abdomino-perineal resection and post-operative chemotherapy.

**Keywords:** Carcinoma, Colorectal cancer, Rectal Cancer.

## INTRODUCTION

Colorectal cancer is an exceedingly rare cancer of children and adolescent (Age <20 years). However, the incidence of young-onset colorectal cancer (age < 50 years) is slowly growing, it accounts for 2 to 8% of all colorectal cancers. The incidence of CRC in the age group 20-49 years has increased 1.5% per year in men and 1.6% per year in women from 1992 to 2005.<sup>[1]</sup> Exact incidence in the age group 0-19 years is not known but till 2005 only 159 cases have been reported in world literature.<sup>[2]</sup> Most of these cancers are sporadic in nature; genetic susceptibility is present in only 15-20 % of cases.<sup>[3]</sup> Its relative rarity makes clinical suspicion difficult and therefore results in delayed presentation often at an advanced stage. As in our case, earlier patient neglected the symptoms of per rectal bleed and later was managed conservatively by the general practitioner.

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## CASE REPORT

The 18-year-old male patient presented with complaints of hard mass felt on digital palpation since 2 months, altered bowel habits since 4-5 months, passing intermittent red coloured stools since 4 years. The patient first noticed the bleeding per rectum at the age of 15 years which was neglected by the patient. Patient approached health care facility when he felt a hard mass on digital

examination done by the patient himself. The patient was averagely built with no other significant medical illness or surgical history. The patient was taking mixed diet. There was no history of colorectal cancer or any other cancer in the family or any other risk factors for colorectal cancers. Per rectal and proctoscopic examination revealed a circumferential narrowing of one finger breath involving approximately 3 cm from the anal verge. Biopsy from the growth confirmed it to be a mucinous adenocarcinoma of the rectum. CECT abdomen was done which suggested a mildly enhancing circumferential wall thickening involving the rectum for the length of 4 cm with luminal narrowing with no evidence of any local or distant metastasis [Figure 1].



**Figure 1:** CECT Abdomen: CECT abdomen suggested a mildly enhancing circumferential wall thickening involving the rectum with luminal narrowing.

Preoperative CEA levels were 4.9 ng/ml. Based on these findings patient was planned for surgery. Pre-anaesthetic work up was done. Laparoscopic Abdominoperineal resection with permanent colostomy was done [Figure 2].



**Figure 2: Gross examination of the specimen showing circumferential involvement of rectum.**

The patient had an uneventful post-operative recovery. Histopathology examination reported it to be a mucinous adenocarcinoma of rectum with perineural infiltration and metastasis in single lymph node with free margins [duke staging – C 1]. Immunohistochemistry was done. Post-operatively patient received chemotherapy FOLFOX regimen and is in follow-up.

## DISCUSSION

Colorectal cancer is one of the leading causes of cancer-related worldwide, especially in developed countries. It is predominantly seen in adult population of age > 50 years. However, recent trends have shown a decline in incidence rate amongst the older population of western world. At the same time incidence in young population (age < 50 years) is on the rise.<sup>[4]</sup> Though reason for this trend is not known but may be attributed to change in lifestyle, dietary habits, increased prevalence of obesity and increase in screening rates among older population.<sup>[5]</sup> These observations are from western literature; in India prevalence of colorectal cancer is low with age-standardized incidence rates of 4.2 and 3.2/ 100,000 population. In recent years India has also experienced a rise in cases of young-onset colorectal cancer.<sup>[6]</sup> In spite of this rise incidence in teenage group is less with few reported cases in different series with one study reported 159 cases till 2005.<sup>[2]</sup> In India, very few large-scale studies have been carried out with no studies done to study the genetic profile in these patients.<sup>[7]</sup>

Young adults with increased risk are those with history of inflammatory bowel disease, familial history of colorectal cancer [Hereditary Non-Polyposis Coli, Familial Adenomatous Polyposis, PJS, etc.] and early screening in this population have shown reduced mortality rates.<sup>[8]</sup> As only 15-20% of

colorectal cancer cases have genetic susceptibility with 80% of colorectal cancers being sporadic in nature present screening guidelines will not identify majority of the young-onset colorectal cancer patients without any genetic susceptibility. For early diagnosis and better management of these patients and to develop a standardized screening guidelines exact molecular mechanism should be available. According to revised Bethesda guidelines, individuals diagnosed with colorectal cancer before 50 years of age should undergo genetic testing.<sup>[9]</sup> However in resource-limited conditions with financial constraints, genetic testing is not possible always.

Characteristics of colorectal cancer in young patients are: non-specific symptoms, presentation at an advanced stage, poorly differentiated histology of mucinous or signet ring type, and generally have poor outcomes.<sup>[10]</sup> These non-specific symptoms, resemblance with many benign conditions like hemorrhoids, intussusception, appendicitis, gastroenteritis etc. and rarity in these age groups makes the early diagnosis difficult.<sup>[11]</sup> Our patient presented with similar non-specific symptoms and was managed as a case of hemorrhoids without evaluation. Later when patient noticed hard lump on self-rectal examination patient was further evaluated and was diagnosed with carcinoma rectum and managed with abdominoperineal resection and chemotherapy.

## CONCLUSION

Colorectal cancer usually presents in old age, but increasing number of young patients of age less than 50 years are diagnosed with this condition. Despite of this trend, colorectal cancer is still not considered as the common differential diagnosis while managing the case of bleeding per rectum without any genetic predisposition. This case is being reported to show that although colorectal cancer is rare in pediatric and teenage population high degree of suspicion and low threshold must be kept while managing such cases.

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