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Colorectal Cancer Mimicking as Abdominal Tuberculosis - A Rare Case Report

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Abstract: ***Colorectal carcinoma is commonest malignancy of the gastrointestinal tract and is the second most usually diagnosed cancer in adults, mainly at 6th to 7th decades of life. CT and MRI are the modalities of choice used for staging and Colonoscopy for better evaluation and tissue diagnosis as well to see other occult lesion. On the other hand the incidence of TB is increasing all over the world. Although pulmonary involvement is most frequent, 3% of patients present with abdominal involvement which requires differential diagnosis from malignancy. The clinical presentation of abdominal TB is pain abdomen, weight loss, fever, anorexia, altered bowel habits, bleeding per rectum, palpable mass in abdomen, and it is difficult to differentiate from crohn' s disease and malignancies. In this article, we aimed to report a patient with colorectal carcinoma which could be confused with abdominal TB in clinical and imaging modalities***

Keywords: colorectal carcinoma, abdominal TB, CECT abdomen, biopsy, colonoscopy, pet scan

1. Introduction

Colorectal cancer is the second most common cause of cancer death in developed countries. Clinical presentation is typically sneaking, with altered bowel habit or iron deficiency anemia from chronic occult blood loss. Patient can present with symptoms of bowel obstruction, intussusception, heavy bleeding and metastatic disease. Sometime it is detected incidentally by CT done for other reason[1]. Previously Colonoscopy or double contrast (air-barium) enema was used to diagnosed colorectal carcinoma; however, recently widely available Computed Tomography (CT) becomes initial imaging modality of choice in patients with a variety of gastrointestinal symptoms and suspected GI malignancy. Generous use of CT for evaluation of GI pathology the radiologist may be the first to suggest the diagnosis of colon cancer on the basis of CT findings. Many times colon cancer detected or suspected on colonoscopy and CT or MRI recommended for better evaluation and staging to plan treatment and for follow-up[2]. Continued advancements in scanner and computer technology with CT colonography to play a major role in detection of polyps and early-stage colon cancer in a comfortable way as many patients cannot tolerate or like colonoscopy. Approximately 30 % of colorectal cancers occur in the sigmoid, 25% occur in the rectum, and 25% occur in the cecum and ascending colon. The remaining 20% of cancers occur in the transverse and descending colon[1, 3].

In developed countries, the incidence of tuberculosis (TB) is rising as a result of immunosuppression induced by increasingly prevalent causes like cancer and human immunodeficiency virus infection. In developing nations, poor living conditions are the main cause of TB infection.[4]TB is an infectious disease which can involve any organ or tissue, is a major cause of morbidity and mortality, and is characterized by calcified granulomas. The most common form is pulmonary TB. Abdominal TB is seen in 15-20% of all extrapulmonary TB cases and 3% of TB cases overall.[5, 6] Abdominal TB may involve the enteric, peritoneal, omental, and mesenteric lymph nodes, as well as intra-abdominal solid organs such as the liver, spleen, and pancreas.[7]Theileocecal region or jejunum are involved in approximately75% of gastrointestinal system (GIS) TB cases. The clinical presentation of abdominal TB includes abdominal pain, diarrhea, fever, and weight loss, and can be difficult to differentially diagnose from Crohn's disease and GIS malignancies.

With this report, we aimed to present a case of colorectal carcinoma whose clinical and imaging findings could be mistaken for abdominal TB.

2. Case Report

A 50 year male presented to the hospital with pain abdomen, weight loss, anorexia, altered bowel habits and fever. USG abdomen was advised which shows multiple enlarged discrete lymphnodes seen in periportal, peripancreatic, aortocaval, and mesenteric group largest of size 3.9cm in peripancreatic region. Marked mural thickening of small gut loops seen measuring upto 13mm. CECT whole abdomen was advised for further evaluation which showed irregular concentric ascending colon wall thickening with multiple enlarged necrotic mesenteric and retroperitoneal lymph nodes with ascites. First provisional diagnosis of abdominal TB was made. Colonoscopy was done which showed circumferential edematous, hyperemia, nodular ulcerated thickening in ascending colon, multiple biopsy and TB-PCR was taken. Rest of colonic mucosa was normal. Histopathology report showed chronic inflammatory infiltrate with no evidence of malignancy. Impression was made of that of infective tubercular etiology. TST was non reactive with normal chest xray.

To confirm the diagnosis further USG guided FNAC of abdominal lymph nodes was done and the cytopathology report shows sheets, papillaroid fragments and cohesive clusters of malignant cells having high N;C ratio, moderate nuclear polymorphism, coarse chromatin and scant cytoplasm . Diagnosis was made of carcinoma. Further evaluation was done and trucut biopsy from abdominal lymph node was taken. The trucut biopsy shows extensive area of necrosis with focal area showing presence of a cellular tumor with cells arranged in nests and focal papillary architecture. Histology was consistent with carcinoma. CEA and CA-19-9 were raised. Immunochemistry was positive for CK-20, CDX-2, SAT B2 .Final diagnosis was made of colorectal adenocarcinoma

PET-SCAN revealed FDG avid circumferential thickening ascending colon, FDG avid lesions involving lymph nodes and faintly FDG left lung lesion- suspicious for metastasis

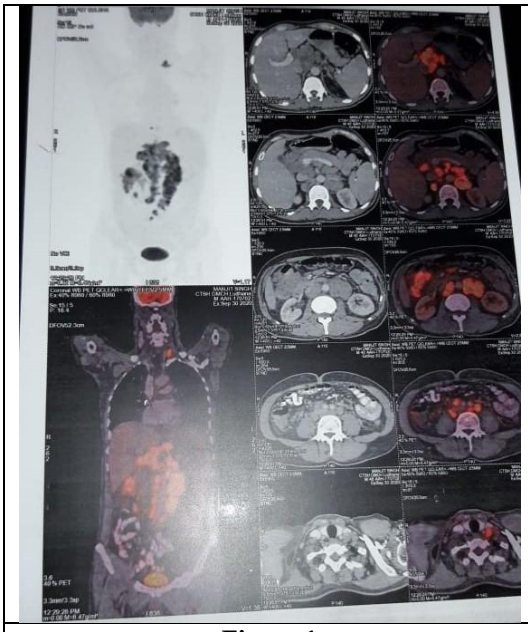

Figure 1

Figure 2

Figure 1 shows PET-SCAN revealed FDG avid circumferential thickening ascending colon, FDG avid lesions involving lymph nodes and faintly FDG left lung lesion- suspicious for metastasis

Figure 2 shows colonoscopy showed circumferential edematous, hyperemia, nodular ulcerated thickening in ascending colon. Rest of colonic mucosa was normal.

3. Discussion

Colorectal cancer is the second most common cause of cancer death in developed countries. Colorectal carcinoma is common; accounting for 15% of all newly diagnosed cancers, and tends to be a disease of the elderly, with the median age of diagnosis between 60 and 80 years of age, slightly younger for rectal carcinoma. CT and MRI are the modalities of choice used for staging. Colonoscopy for better evaluation and tissue diagnosis as well as to see other occult lesion. Surgical resection may be curative although five-year survival rate is 40 - 50 %.[1]

Clinical presentation is typically sneaking, with altered bowel habit or iron deficiency anemia from chronic occult blood loss. Patient can present with symptoms of bowel obstruction, intussusception, heavy bleeding and pain abdomen and fever due to which it can strongly mimick abdominal TB. Sometime it is detected incidentally by CT done for other reason[1].

Abdominal TB is seen in 15-20% of all extrapulmonary TB cases and 3% of TB cases overall.[5, 6] Findings from radiologic imaging studies to identify abdominal TB involvement are non-specific. Imaging findings which may suggest abdominal TB are narrowing or apple-core sign on barium colonography. Ascites, omental thickening, abdominal lymph nodes, and bowel wall thickening may be observed on CT. However, these findings alone are not sufficient for diagnosis and are not disease-specific signs. Colonoscopy has an important place in the diagnosis of ileocecal and colon TB. Ulceration, nodular appearance, cecal mass, and ileocecal valve deformation are the most common colonoscopy findings.[8] All these findings can be present in malignancy as in our case so it is difficult to differentiate malignancy from abdominal TB both clinically and radiologically.

4. Conclusion

In conclusion, malignancy should be considered in the differential diagnosis of patients with no history of pulmonary TB presenting with non-specific Gastro Intestinal symptoms. We believe that in developing countries where the frequency of TB is high, such as India, malignancy should be also be suspected and advanced testing should performed when clinically and radiologically both diseases are indistinguishable.

In this article, we aimed to report a patient with colorectal carcinoma which could be confused with abdominal TB in clinical and imaging modalities

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