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A Rare Presentation Of Adenocarcinoma Of The Small Bowel With Tuberculosis - Case Report

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ABSTRACT: Coexistenceof adenocarcinomawith tuberculosis of small bowel is very rare. Cases have been documented involving ascending and sigmoid colon, duodenum, stomach and small bowel. Amongst these, it is rare that small bowel especially jejunum is infected by tuberculosis.

We report a case of 67 year old male with adenocarcinoma of jejunum with coexistence of tuberculosis. Patient was taken up for laparotomy and proceeded with resection and anastomosis of the growth.

Postoperatively, patient was started on antituberculous drugs and chemotherapy. No evidence of recurrence has been noted after one year of follow up.

Keywords : Adenocarcinoma, tuberculosis, jejunum

I. INTRODUCTION:

Tuberculosis (TB) has been regarded as a global health problem and is more common in the developing world. Although gastrointestinal TB is one of the common forms of extra pulmonary TB. The coexistence of carcinoma and tuberculosis is unusual and their association has bewildered surgeons and scientists. Chronic inflammatory bowel diseases have been associated with an increased risk of malignancy. TB can involve any part of the gastrointestinal tract (GIT) from Oral cavity to anus, the peritoneum and the pancreatobiliary system. GIT is the sixth most frequent site of extra pulmonary involvement by TB, ileocaecal region being the most common site, jejunal TB is rare. Both occurring at the same site is a rare entity. Inflammatory bowel diseases can progress to malignant diseases due to mucosal dysplastic change. Similarly, intestinal TB can cause chronic inflammation, but the exact relationship between intestinal TB and cancer is currently obscure. The coexistence of TB and carcinoma may be simply a coincidence. The paths of gastrointestinal infection include dissemination through the intake of infected sputum, hematogenous dissemination of tuberculosis foci at the pulmonary level or in the submucosal lymphatic nodes and local dissemination from the primarily infected neighbouring organs.

II. CASE HISTORY:

A 67 year old male patient, came with complaints of left sided lower abdominal pain for 1 month, insidious in onset, intermittent in nature, dragging type of pain, aggravated on taking food, no radiation. Complaints of vomiting for 2 days, 2-3 episodes/day, vomitus contains food particles and bile, not blood stained. History of altered bowel habits present. No history of hematemesis, melena, loss of weight, loss of appetite, fever, evening rise of temperature, chronic cough, breathlessness. No history of similar complaints in past. Patient is not a known case of diabetes, hypertension, tuberculosis, or thyroid disorder. H/o appendicectomy done 20years back. H/o hemorrhoidectomy 30 years back. No history of malignancy or TB in the family.

Abdomen examination - abdomen is distended, flanks are not full, all quadrants move with respiration, umbilicus is in midline and everted, no visible mass , 5 cm mcburney's scar present in RIF - post op appendicectomy scar. No visible gastric or intestinal peristalsis, no visible pulsations, no dilated veins over abdomen, no organomegaly, no guarding and rigidity, no free fluid. Hernial orifice - no cough impulse, external genitalia is normal. Per rectal examination - Tone normal, no mass palpated per rectum.

CECT abdomen and pelvis - concentric bowel wall thickening involving distal jejunum/ proximal ileum with proximal bowel loop dilation,

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regional mesenteric hypertrophy and adenopathy - possibilities include - small bowel lymphoma/ tubercular thickening/ Gastrointestinal stromal tumor (Fig -1).

We performed diagnostic laparoscopy. Moderate amount of blood coloured fluid present in the peritoneal cavity. 8 x 6cm mass identified in the distal jejunum and proximal ileum with multiple mesenteric lymph nodes noted (Fig 2). Hence, diagnostic laparoscopy was converted to open laparotomy. Thorough laparotomy done. Resection of mass done (20cm along with 5cm clearance on both the sides) and specimen sent for histopathological examination. Distal jejunum and proximal ileum anastomosis done.

Histopathological examination revealed Grade 1 well differentiated adenocarcinoma with epitheloid granulomatous inflammation suggestive of tuberculosis. Pathological stage - pT3 N0 M0 (STAGE IIA).

Fig -1

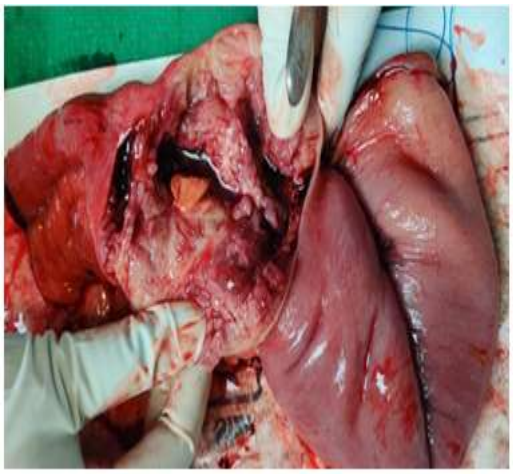

Fig - 2

III. DISCUSSION:

Involvement of the small intestine by TB is referred to as tuberculous enteritis. The ileocecal region is the most commonly affected area of the gastrointestinal tract. There are 3 morphological types of tuberculous enteritis - ulcerative, hypertrophic, and ulcerohypertrophic. Ulcerative tuberculous enteritis is characterized by single or multiple mucosal ulcerations which are usually oriented in the transverse direction, often circumferentially. This form typically affects the jejunum, ileum, and cecum. Complications include perforation, bleeding, fistula formation. If clinical symptoms persist beyond two weeks, an alternative diagnosis, disease complications, drug

malabsorption, or drug resistant disease should be considered .Adjunctive endoscopic and surgical interventions can be employed. Clinical improvement can be expected in as soon as two weeks following initiation of therapy, while endoscopic improvement can be seen after three months [1].

Usually tubercular strictures are common. Very few obstructions could be because of strictures due to adenocarcinoma of small bowel, carcinoid, lymphoma etc. If there is suspicion of adenocarcinoma, cancer directed surgery seems to be rational surgical approach for a disease with a poor prognosis. If the clinical condition of patient does not permit for surgery or there is doubt about the disease, biopsy of the suspicious lesion and a cancer directed surgery at later date can be performed [2].

Factors that disturb host immunity increase susceptibility to active tubercular infection, either exogenously or endogenously. Severe weight loss or malnutrition related to an advanced neoplastic disease is such a factor. Conceivably invasion of a dormant tubercular lesion by carcinoma could lead to activation and endogenous reinfection. Locally produced tumor peptides or antigens may also upset the milieu of a granuloma and allow the TB organisms to proliferate. Chronic inflammatory diseases like ulcerative colitis and Crohn's disease are known to predispose to malignancy. Chronic inflammatory mucosal damage initiate a sequence of metaplasia and dysplasia leading to neoplastic change, drawing parallels, it may be postulated that the ulcerative lesions of intestinal TB are precursors of carcinoma. Although there is no evidence to indicate a higher incidence of carcinoma in TB, facilitation of entry of tubercle bacilli with development of secondary infection in patient with carcinoma is one plausible cause[3]. On the other hand, it is also universally accepted that factors that disturb host immunity increase susceptibility to active tubercular infection, either exogenously or endogenously. Some authors have postulated that cancer of the colon is the primary lesion, followed by secondary infection of the tuberculous bacilli in the malignant ulcer, which might have been [6].

facilitated by luminal obstruction, impaired cellular immunity and loss of mucosal barrier [4]. Severe weight loss or malnutrition related to an advanced neoplastic disease is such a factor. Conceivably invasion of a dormant tubercular lesion by carcinoma could lead to activation and endogenous reinfection [5].

IV. CONCLUSION:

Adenocarcinomas of small bowel are only 1–2% of all gastrointestinal (GI) malignancies. The duodenal adenocarcinoma is most common. Whereas adenocarcinoma of jejunum is the rarest.

Tubercular structures are quite common. Hence, if symptoms persists beyond 2 weeks, an alternative diagnosis should be considered. Patient should be treated by resecting the tumour, starting on anti tuberculous Drugs and concurrent chemotherapy. Our case is the only case reported in the literature which has adenocarcinoma and tuberculosis of jejunum simultaneously.

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