



## INTERVENTIONAL RADIOLOGICAL MANAGEMENT OF ABDOMINAL TUBERCULOSIS PRESENTING AS A CASE OF MASSIVE RECTAL BLEEDING

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### ABSTRACT

Massive rectal bleeding is an uncommon presentation of ileal tuberculosis. Fewer than 12 cases are reported in the literature. We report a case of ileal tuberculosis presenting at the emergency department with subacute intestinal obstruction and severe rectal bleeding. This was identified only after contrast enhanced computed tomography. Patient was further managed by fluoroscopic cecal artery embolisation and anti tubercular drugs. Patient was followed up with surgical opd symptom free and with progressive weight gain.

**KEYWORDS:** Tuberculosis, embolisation and anti tubercular drugs.

### INTRODUCTION

The clinical manifestations of intestinal tuberculosis are nonspecific. Most patients present with low grade fever, weight loss, abdominal pain, anorexia, or diarrhea.<sup>[1]</sup> Ileal tuberculosis is one of the commonly encountered surgical emergencies; the incidence of intestinal tuberculosis in presence of active pulmonary tuberculosis is between 3%–90%.<sup>[2,3]</sup> Varied acute presentations of ileal tuberculosis are encountered such as subacute intestinal obstruction due to stricture or adhesions, or tuberculous stricture perforation. Massive rectal bleeding is considered a rarely presented symptom of intestinal tuberculosis.<sup>[4-9]</sup> The ileocaecal region is the most common site of gastrointestinal involvement and hemorrhage due to tuberculosis is often occurred in this region.<sup>[6]</sup> Here we report an Indian female diagnosed with ileal tuberculosis presenting with massive bleeding from the rectum.

### CASE REPORT

A 19-year-old female patient presented to us with a complaint of being unable to evacuate his bowels and flatulence for the previous two days and with persistent bleeding from the rectum for one day. She was a known case of abdominal kochs, but failed to continue with the medication. On examination, patient was pale. He had a pulse rate of 110 beats/minute and blood pressure was 90/60 mm Hg. Rectal examination showed the presence of fresh blood. Ryle's tube showed the presence of clear bile. Patient was stabilized haemodynamically. Upper gastrointestinal endoscopy performed was normal. Emergency investigations showed Hb of 6.8 g% and hematocrit 29%. The white blood cell count was 6200/ $\mu$ l

and platelet count was 95,000/ $\mu$ l, ESR 45. Chest X-ray was found to be normal. Patient's rectal bleeding continued, hence a computed tomography was performed which was suggestive of vascular malformation involving the ileum and caecal area. Hence a decision of fluoroscopic guided embolisation of the feeder vessel was decided the patient in view of persistent rectal bleeding was undertaken with adequate blood transfusion. Following the cecal artery embolisation the bleeding stopped and only clots were passed per rectally over 2 days following which the patient remained symptomless. Patient was further subjected to antitubercular drugs and followed up in surgery opd.

### DISCUSSION

Intestinal tuberculosis is much more difficult to diagnose than pulmonary tuberculosis and requires a high index of suspicion. Intestinal tuberculosis presenting with lower gastrointestinal bleed is rare and accounts for about 5% of cases of lower gastrointestinal bleeding.<sup>[2,3]</sup> In the presence of active pulmonary tuberculosis, vague abdominal pain, weight loss, and passage of a small amount of blood from the rectum could suggest the possibility of intestinal tuberculosis.<sup>[2,6]</sup>

Colonoscopy followed by biopsy is considered the most effective investigation for definitive diagnosis of ileocaecal and colonic tuberculosis.<sup>[10]</sup> However, the endoscopic and histological examination of the involved areas often shows nonspecific findings and cultures for tuberculosis are often negative.<sup>[11]</sup>

The patient had no evidence of active pulmonary tuberculosis but was a defaulter case of abdominal Koch's and had massive rectal bleeding so cecal artery embolisation was done in view of AV malformation due to ileal tuberculosis which was found to be the cause of active bleeding. Massive gastrointestinal bleed occurs because of underlying obliterative endarteritis within the ulcer crater.<sup>[2]</sup> The patient had both stricture formation and evidence of obliterative endarteritis. Technetium 99m-labeled red blood cell scan can help localize the bleeding lesion.<sup>[3]</sup>

In a literature review, we found only 10 cases of intestinal tuberculosis presenting with bleeding per rectum.<sup>[2-5,7-9,12-14]</sup> Of these patients, seven had bleeding from the ileocaecal area,<sup>[2,4-6,13-15]</sup> two from the descending colon,<sup>[16,17]</sup> and one from the transverse colon.<sup>[18]</sup> Thus, in most of these patients, the bleeding occurred from the ileocecal area and massive bleeding from ileum or jejunum (except for terminal ileum) was not reported.

In a study of 130 patients with alimentary tract tuberculosis by Al Karawi and colleagues,<sup>[1]</sup> the disease was located in the small bowel in 44 patients (33.8%) and in the large bowel in 29 patients (22.3%). Moreover, in their study of 44 patients with small bowel tuberculosis, hemorrhage was observed in only one patient but was observed in three of 29 patients with large bowel tuberculosis.<sup>[1]</sup> According to their report, it is suggested that bleeding from small bowel tuberculosis is rare although small bowel tuberculosis is not so uncommon.

Colonoscopy was performed in four of 10 patients and showed lesions in two patients. Except for one patient,<sup>[16]</sup> histological small intestinal tuberculosis was not found. 99mTc red blood cell scintigraphy was useful to locate the bleeding lesion and to make a preoperative diagnosis of hemorrhage from the ileum. 99Tc red blood cell scintigraphy is more sensitive than angiography for detecting bleeding sites and can detect sites with a minimum bleeding rate as low as 0.1 ml/min.<sup>[19]</sup>

Our literature review found that the preferred treatment of intestinal tuberculosis was medical. Except for one patient with bleeding from the descending colon,<sup>[16]</sup> patients with massive bleeding from intestinal tuberculosis were treated by laprotomy and antitubercular drugs postoperatively. Histological examination of resected specimen showed caseating granulomas in all patients. This finding indicates that surgery remains the definitive therapeutic for the diagnosis and treatment of patients of massive rectal bleeding due to intestinal tuberculosis. Indeed, in our patient, no rectal bleeding was seen after surgery and diagnosis was made on basis of histopathological examination of the resected specimen.

Since the symptoms associated with intestinal tuberculosis are highly variable, hemorrhage, obstruction, perforation, or fistula may occur at various levels of the small and large bowel. From our experience and review of literature, although massive rectal bleeding from intestinal tuberculosis is rare, it is suggested that small intestinal tuberculosis should be kept in mind as a cause of rectal bleeding, especially if the patient is an immunocompromised host.

In our case, rather minimal invasive technique was used for control of the bleeding and further study of this modality might open up new horizons.

## CONCLUSION

Massive rectal bleeding is an uncommon presentation of ileal tuberculosis. In the presence of active pulmonary tuberculosis, intestinal tuberculosis can be considered as a differential diagnosis of massive rectal bleeding, especially in endemic areas of tuberculosis.

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