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General Surgery

CLINICAL PATTERNS AND MANAGEMENT OF ILEOCECAL TUBERCOLOSIS

Dr Kamlesh U. Gohil	Assistant Professor, Department of GEN SURGERY, ZMCH, DAHOD, GUJARAT, PIN-389151.
Dr Madhukar Rajaram Wagh	Associate Professor, Department of GEN SURGERY, ZMCH, DAHOD, GUJARAT, PIN-389151.
Dr Rahul Babubhai Parmar	Assistant Professor, Department of GEN SURGERY, ZMCH, DAHOD, GUJARAT, PIN-389151.

ABSTRACT Ileocecal tuberculosis is very difficult to diagnose as no pathognomonic clinical features have been recognized: in particular, the distinction from Crohn's disease can be almost impossible on clinical grounds alone. However, the advent of antituberculous drug therapy has made available a powerful therapeutic agent whose value in the treatment of the condition is uncertain. Because drugs cannot be employed unless the disease can be recognized, we have thought it worthwhile to re-examine the clinical features in an attempt to establish diagnostic criteria. At the same time, in order to ascertain what is at present the best treatment for ileocecal tuberculosis, we have studied the outcome of three types of treatment. Antituberculous drugs alone, Short circuiting ileotransverse by-pass ,Immediate right hemicolectomy.

KEYWORDS : Ileocxecal tuberculosis,Management.

INTRODUCTION

Gastrointestinal tuberculosis is a lesscommon manifestation of extrapulmonary tuberculosis . Due to overlapping clinical, radiological, and endoscopic characteristics, abdominal tuberculosis is frequently misdiagnosed as Crohn's disease, colonic cancer, and abdominal lymphoma . The signs of abdominal tuberculosis are obscure, creating a delay in diagnosis and treatment, resulting in severe morbidities. The clinical manifestations of abdominal TB differ depending on the site of infection. Abdominal pain, diarrhea, weight loss, anorexia, and fever are common symptoms of intestinal tuberculosis, although bleeding from the lumen, intestinal obstruction, perforation, and fistula formation are uncommon . Here, we present a case of a 38-year-old male with intestinal tuberculosis who initially presented with massive bleeding per rectum.

MATERIALAND METHODS

Patients were selected for the study only if the disease was confined to the ileocwcal area. In addition, cases were included only if acid-fast bacilli were demonstrated in the material removed for histological examination, with one exception, a woman with a history of pulmonary tuberculosis in whom there was supporting evidence by radiological examination and who was cured by antituberculous chemotherapy. These strict criteria were found necessary in order to be certain of excluding possible cases of Crohn's disease in the material analysed. No patient was included in whom the tuberculous process had involved other parts of the gastrointestinal tract or in whom widespread abdominal disease was present in the form of multiple peritoneal tubercles. Ten cases were found who satisfied the conditions for inclusion in the study: 9 of these had acid-fast bacilli demonstrated in the pathological material; the remaining case had strong presumptive clinical evidence. This is a similar number to other series reported from the United Kingdom, but does not compare with the comparatively huge numbers reported from India by Ukil and Anand.The clinical features were evaluated by studying the case histories of the entire group of 10 cases. The response to treatment was analysed by dividing the cases into three groups: Group 1: Treatment by antituberculous drugs only. Group 2: Treatment by ileotransverse by-pass plus drugs. Group 3: Treatment by right hemicolectomy plus drugs. Patients were placed in these groups on the basis of their initial treatment; Case 2, who was treated by drugs alone at first, but was subsequently treated by ileotransverse colostomy after failure of drug therapy, appears in both Group 1 and Group 2.

RESULTS

Group 1: By drugs alone: Only 2 patients belonged to this group: Case 1 A M, woman aged 24 Presented with an eight months' history of attacks of epigastric pain which had become progressively more severe and recently associated with vomiting. A barium follow-through showed irregularity of the terminal ileum and ctcum. As she had previously suffered from pulmonary tuberculosis, a presumptive diagnosis of ileocecal tuberculosis was made and she was started on drug treatment by streptomycin combined with isoniazid (200 mg daily). She improved considerably symptomatically, became afebrile and gained weight. ESR fell from 51 to 12 mm in 1 hour two months later immediately prior to discharge from hospital. Treatment with PAS and isoniazid mg was continued for six months as an out-pati patient. For nine years she has remained free from symptoms of gastrointestinal disease although she has had a recurrence of pulmonary tuberculosis requiring treatment by PAS and isoniazid. This was the only patient treated by drugs alone who was cured. The second patient did not respond, and one year later was submitted to ileotransverse colostomy. Group 2: By ileotransverse by-pass: Four patients had an attempt at surgical cure by an ileotransverse by-pass procedure which in all cases consisted of a loop of normal lower ileum attached side-to-side to the middle of the transverse colon. In 3 of the 4 cases antituberculous drugs were also given. In none of these cases was this initial treatment successful, and 3 have since undergone further surgery. Two have been cured by resection of the diseased bowel by right hemicolectomy; one is still not cured after a further by-pass procedure. Case 2 D F, woman aged 30 Presented with a four-year history of intermittent colicky pain in the right iliac fossa, constipation and occasional vomiting. A mass was palpated in the right iliac fossa. Laparotomy revealed an inflammatory mass involving the ileocecal region. A biopsy confirmed tuberculosis. She was treated by antituberculous drugs, but continued to suffer attacks of abdominal pain, diarrhoea and loss of weight. One year later an ileotransverse by-pass procedure was performed. She continued on treatment by antituberculous chemotherapy and remained well for three years. Following this her symptoms returned; after six additional periods of hospital treatment her ileotransverse by-pass was revised sixteen years after the first operation and a further short-circuiting procedure performed Since this second operation, three further periods of hospital treatment have taken place. At the time of the second by-pass operation, active changes of tuberculosis were observed. The remaining patient in this group has continued to suffer attacks of abdominal pain similar to those prior to the by-pass procedure without proof of active tuberculous disease remaining in the ileocecal area. Group 3: By immediate right hemicolectomy: Five patients were treated by immediate right hemicolectomy. In all five cases, antituberculous drugs were used to cover the operative procedure. In every case, cure was effected.

DISCUSSION

The ileocaecal region is the most usually affected by gastrointestinal TB, accounting for 64%, followed by the jejunum and large intestine. 'e ileocaecal region is the most involved site in the gastrointestinal tract because it has a prolonged fecal stasis, a high density of lymphoid tissue, a neutral pH environment, and absorptive transport

mechanisms that allow ingested mycobacterium to be absorbed . Ileocaecal TB is difficult to diagnose since it resembles other conditions such as Crohn's disease, amebiasis, diverticulitis, or colon neoplasms. Abdominal pain, fever, distention, vomiting, night sweats, weight loss, and diarrhea are all indications of this localization . Intestinal tuberculosis presenting with massive rectal bleeding is a rare manifestation accounting for only 5% of causes of lower gastrointestinal bleed . The diagnosis becomes more difficult in the absence of active pulmonary tuberculosis. 'e correct diagnosis is only 50% even in prevalent areas. The primary site of involvement was the ileocaecal area in our patient, and there were no clinical or radiological signs of pulmonary tuberculosis. The colonoscopy-guided biopsy is the investigation of choice in diagnosing ileocaecal and colonic tuberculosis. 'e acid-fast staining, culture, and gene XPERT have a sensitivity and specificity of (31%, 100%), (31%, 100%), and (95.7%, 100%) respectively. Histological features of tuberculosis are caseous granulomas with conglomerate epithelioid histiocytes, giant cells with submucosal inflammation of predominantly lymphoplasmacytic type, while the microscopic features are lymphoid aggregates, pyloric metaplasia, dilated submucosal lymphatics, cryptitis, and crypt abscess . However the classic histological features are seen only in 13–33% of patients with colonic tuberculosis . Also, the rest show nonspecific findings. In our patient, histopathological findings did not show classical features of tuberculosis. In addition to caseous necrosis and acid-fast bacilli (which are found in only a small percentage of biopsy specimens from patients with intestinal tuberculosis), the size, number, and confluence of granulomas, the presence of ulcers lined by bands of epithelioid histiocytes, and disproportionate submucosal inflammation may help distinguish intestinal tuberculosis from Crohn's disease. In our patient, there were multiple transverse ulcers suggestive of intestinal tuberculosis. Crohn's disease and intestinal tuberculosis can coexist rarely, and after successful treatment of tuberculosis, reevaluation is mandatory. In a study in China, only 20% of patients were diagnosed with intestinal tuberculosis and the rest 80% were misdiagnosed . Due to mimicking with other diseases such as Crohn's disease, a malignancy , misdiagnosis can lead to delay in treatment of other diseases as well as unnecessary drug toxicity from antitubercular therapy. Similarly, therapy with immunosuppressants in intestinal tuberculosis considering Crohn's disease can cause a flare up of tuberculosis and significant morbidity and mortality. A single costeffective investigation is still not available for intestinal tuberculosis, and the diagnosis reached on the therapeutic basis in 20% of cases. The treatment of gastrointestinal tuberculosis is the same as that of pulmonary tuberculosis constituting a regimen of four drugs isoniazid, rifampicin, pyrazinamide, and ethambutol for initial 2 months followed by isoniazid and rifampicin for 4 months. Surgical treatment is instituted in Case Reports in Gastrointestinal Medicine Figure 1: CT of the abdomen showing asymmetric circumferential thickening in the ileocaecal region with lobulated thickened caecum, soft-tissue stranding, and necrotic mesenteric lymphadenopathy intestinal obstruction, perforation, and fistulization refractory to ATT. 'e advancement of colonoscopy and gene XPERT has caused a decline in laparotomies. Upper and lower gastrointestinal bleeding, fistulas at different sites, obstruction of the gut lumen, stricture formation, intussusception, perforation, anemia, malnutrition, malabsorption, weight loss, deficiency of essential vitamins and minerals, and chronic inflammatory demyelinating polyneuropathy have all been reported in patients with intestinal tuberculosis . Surgical bypassing of concerned intestinal segments, radical excision of implicated segments, or conservative operations such as strictureplasty are used to treat intestinal tuberculosis. Massive hematochezia can lead to rapid fall in the level of hemoglobin level as in our patient which can be managed with the transfusion of whole blood. For complications such as free perforation, substantial bleeding, total obstruction, abscess formation, big fistulas, and unresponsiveness to antimicrobial medications, surgery is the next best option after drug therapy. 'e most common complication is obstruction; individuals who have multiple and/or lengthy strictures are less likely to respond to medical treatment. Colonoscopic balloon dilation, which has been proved to be a viable option, can be used to treat easily accessible, short, and fibrous tuberculous ileal strictures that are causing subacute obstructive symptoms.

Despite the lack of expertise, this approach looks safe and may eliminate the need for surgery. In our case, surgery was not opted for the treatment.

CONCLUSION

Although severe hematochezia is a rare symptom of intestinal tuberculosis, it should be considered a differential diagnosis in patients who come with rectal bleeding in tuberculosis-endemic areas. Physicians should be aware of the misdiagnosis due to the presentation of rectal bleeding that can lead to the potential complications.

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