CASE REPORT

Isolated caecal tuberculosis mimicking a neoplastic tumour in an immunocompetent woman

Eya Cherif, Lamia Ben Hassine, Samira Azzabi, Narjess Khalfallah

Department of Internal Medicine, Charles Nicolle Hospital, Tunis, Tunisia

Correspondence to

Dr Eya Cherif,
eyacherif@yahoo.fr

SUMMARY

Although tuberculosis is endemic in Tunisia, only a few cases of intestinal disease have been reported. This entity is usually associated with pulmonary tuberculosis. Any part of the gastrointestinal tract may be affected but usually with ileocaecal involvement. Diagnosis is extremely difficult because the clinical presentation is so variable. The disease frequently mimics other chronic inflammatory intra-abdominal diseases or even malignancy. We report a case of isolated colonic tuberculosis presenting as circumferential ulcerovegetative lesions in the caecal region.

BACKGROUND

Isolated colonic tuberculosis (TB) accounts for approximately 2–3% of all abdominal disease. The ileocaecal area is the most frequently involved site (90% of cases).^{1–2} The diagnosis can be extremely difficult to make since large bowel TB has no specific clinical symptoms, particularly in the absence of active pulmonary infection. It may simulate many other abdominal diseases, such as tumours, Crohn's disease, other infectious processes and periappendiceal abscess.³ The importance of making the diagnosis is crucial, as untreated disease has a considerable mortality rate. This case is being reported to make clinicians aware of this unusual presentation of intestinal TB.

CASE PRESENTATION

A 54-year-old woman, with no medical history, was hospitalised for weakness and anorexia for the past 2 months. She reported a weight loss of about 10 kg. General physical examination revealed that she was afebrile with normal vital signs. Her abdomen was not tender; there were no masses and no organomegaly. No lymphadenopathy was found. Digital rectal examination was normal.

INVESTIGATIONS

Laboratory tests revealed normocytic anaemia (haemoglobin was 10 g/dL) and the erythrocyte sedimentation rate was 84 mm/h. Chest X-ray and abdominal ultrasonography were normal. CT of the abdomen showed circumferential thickening of the wall of the caecal ascending colon with reactive lymphadenopathy (figure 1). Thoracic CT disclosed no abnormal findings. There was no elevation of tumour markers, carcinoembryonic antigen or carbohydrate antigen 19-9 (CA19-9). Colonoscopy revealed a tumorous lesion in the caecum with diffuse ulcerative lesions (figure 2). The rest of the colon was normal. Colonic biopsies showed

Figure 1 Abdominal CT showing circumferential thickening of the wall of the caecal ascending colon.

infiltration of the mucosa by inflammatory cells. Several tubercular granulomatous lesions were noted in the submucosa with a focal caseous necrosis. Acid-fast bacilli cultures were negative in the sputum and endoscopic biopsies. The tuberculin skin test was positive. HIV testing was negative. The diagnosis of caecal TB was made.

TREATMENT

The patient was treated with isoniazid, rifampicin, pyrazinamide and ethambutol for the initial 2 months and isoniazid and rifampicin for the next 4 months.

OUTCOME AND FOLLOW-UP

Two months later, a colonoscopy demonstrated healing of the erosions in the ascending colon. After 2 years of treatment, there was no evidence of recurrent colonic TB.

Figure 2 Colonoscopy image showing ulcerovegetative lesions in the caecal region.

CrossMark

To cite: Cherif E, Ben Hassine L, Azzabi S, *et al.* *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-201048

DISCUSSION

Intestinal TB frequently affects immunocompromised individuals and is attributed mainly to haematogenous dissemination or direct extension from adjacent structures. However, as in our case, it has been described in an immunocompetent patient without other tuberculous localisation.⁴ The most common presenting symptoms are abdominal pain, anorexia, weight loss, fever and change in bowel habit.⁵ All of these symptoms are non-specific and the diagnosis of this disease is quite difficult. The differential diagnosis between TB, malignancy, inflammatory bowel diseases and other infections is important.³ A high index of suspicion with correlation of clinical, radiological and colonoscopic findings is considered useful for the diagnosis.⁶ A positive tuberculin skin test, a history of TB, chronic immunodeficiency and origin from an endemic area are all suggestive of TB. Imaging studies and colonoscopy may be helpful but are non-specific. The combination of colonic wall thickening and enlarged necrotic lymph nodes seen on CT scan suggests the diagnosis of colonic TB.⁷ Colonoscopy can reveal ulcerations, aphthoid erosions, nodularity, polypoid lesions, strictures or diffuse colitis.⁸ The definitive diagnosis is confirmed by endoscopic biopsy that reveals caseating epithelioid granulomas or by culture of *Mycobacterium tuberculosis* from tissue specimens. However, proof of caseating granulomas is difficult to obtain from colonic histopathological analysis, and the acid-fast bacilli are found in the colonic mucosa only in 35–60% of cases.^{8–9} In the present case, microbiological evaluation and cultures were negative and the diagnosis was based on the histopathological findings of typical caseous granuloma.

If colonic TB is untreated, several complications can occur including perforation, obstruction, haemorrhage, fistula and stenosis.⁹ The recommended treatment for gastrointestinal TB is conventional antituberculous therapy for at least 6 months. Surgery is reserved for complications.

Learning points

- It is essential for all physicians to consider tuberculosis in the differential diagnosis of patients with colonic lesions, thus enabling an early diagnosis and better treatment.
- There must be a multidisciplinary approach with collaboration between the gastroenterologist, internist and infectologist.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Rasheed S, Zinicola R, Watson D, *et al*. Intra-abdominal and gastrointestinal tuberculosis. *Colorectal Dis* 2007;9:773–83.
- 2 Samlani-Sebbane Z, Diffaa A, Krati K. An unusual colonic tumor in a young man. *Clin Res Hepatol Gastroenterol* 2011;35:338–9.
- 3 Loh KWJ, Bassily R, Torresi J. Crohn's disease or tuberculosis? *J Travel Med* 2011;18:221–3.
- 4 Zubieta-O'Farrill G, Castillo-Calcano J, Gonzalez-Sanchez C, *et al*. Colonic tuberculosis in an immunocompetent patient. *Intern J Sur Case Rep* 2013;4:359–61.
- 5 Tai WP, Hu PJ, Zhai HZ, *et al*. The clinical analysis of 34 cases of intestinal tuberculosis in China's big city hospitals. *Int J Colorectal Dis* 2011;26:1339–43.
- 6 Alvares JF, Devarbhavi H, Makhija P, *et al*. Clinical, colonoscopic, and histological profile of colonic tuberculosis in a tertiary hospital. *Endoscopy* 2005;37:351–6.
- 7 Nagi B, Kochhar R, Bhasin DK, *et al*. Colorectal tuberculosis. *Eur Radiol* 2003;13:1907–12.
- 8 Makharia GK, Srivastava S, Das P, *et al*. Clinical, endoscopic, and histological differentiations between Crohn's disease and intestinal tuberculosis. *Am J Gastroenterol* 2010;19:1–10.
- 9 Jain D, Aggarwal G, Lubana P, *et al*. Primary tubercular caecal perforation: a rare clinical entity. *BMC Surg* 2010;10:12.

Copyright 2013 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.

BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- Submit as many cases as you like
- Enjoy fast sympathetic peer review and rapid publication of accepted articles
- Access all the published articles
- Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow