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Doomed for carcinomatosis? An unusual presentation of abdominal tuberculosis

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ABSTRACT

A 35-year old male from Brazil presented with intermittent abdominal pain. Abdominal computed tomography revealed a nodule adjacent to splenic hilum and multiple abdominal nodules, suspicious for carcinomatosis. The patient underwent gastroscopy and endoscopic ultrasound (EUS), that revealed an ill-defined hypoechogenic lesion adjacent to the spleen and two hypoechogenic subepithelial lesions located in the 4th layer of the stomach and duodenal bulb. Biopsies revealed non-necrotizing granulomatous inflammation with multinucleated giant cells. Soon after, a 18cm palpable mass within the rectus abdominis muscle ensued, which biopsy was positive for Mycobacterium tuberculosis DNA, confirming the diagnosis of disseminated abdominal tuberculosis.

Keywords: Endoscopic ultrasound. Fine-needle biopsy. Subepithelial lesion. Abdominal tuberculosis. Gastrointestinal tuberculosis. Peritoneal tuberculosis. *Mycobacterium tuberculosis*. Abdominal mass.

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Dear Editor,

A 35-year old Brazilian male presented with isolated intermittent abdominal pain for the past 2 years. Blood tests were normal. Computed tomography revealed a nodule adjacent to splenic hilum and multiple abdominal nodules, suspicious for carcinomatosis. Endoscopic ultrasound (EUS) was performed for tissue acquisition, revealing the ill-defined hypoechogenic lesion adjacent to the spleen, with 26x18mm, ill-defined borders and no doppler signal, but also the presence of two subepithelial lesions (SELs) located within the 4th layer of gastric and duodenal wall (Figure 1). These SELs were 27x13mm and 30x30mm, respectively, doppler-negative without calcifications or cystic areas, with some heterogeneity and irregular borders seen in the former. A central ulceration of gastric SEL was seen during endoscopy, so tunnel biopsies of such lesion and EUS-guided fine-needle biopsy of the other lesions were performed, revealing non-necrotizing granulomatous inflammation with multinucleated giant cells. Lymphoma was excluded by flow cytometry. Three weeks later, a 18cm palpable mass within the rectus abdominis muscle ensued and ultrasound-guided biopsy was positive for Mycobacterium tuberculosis DNA, confirming the diagnosis of disseminated tuberculosis (TB) affecting the upper gastrointestinal tract, peritoneum and abdominal wall.

DISCUSSION

Abdominal TB is a common form of extrapulmonary TB, accounting for 1-3% of all TB cases and for 10% of extrapulmonary forms (1,2). Retrospective cohort studies report variable incidences of organ involvement, including the peritoneum, gastrointestinal tract, lymph nodes, visceral involvement or mixed disease, as seen in our case(2-4).

The main issue with abdominal TB is its nonspecific and highly variable presentation, contributing for a delayed diagnosis. This could be further aggravated by a clinician's misconception of an extremely low TB incidence and unfamiliarity with abdominal tuberculosis presentation, which mimics malignant disease as we could see in our case and has been previously reported (2).

Early initiation of anti-TB therapy is mandatory to reduce morbidity and mortality, so that a high index of clinical suspicion is needed during the work-up of abdominal masses and subepithelial lesions (3,4). To established a diagnosis, we should use a combination of clinical, laboratory, radiological, microbiological and pathological findings, the latter two being reached by invasive procedures such as percutaneous biopsy, endoscopy or even surgery (2).

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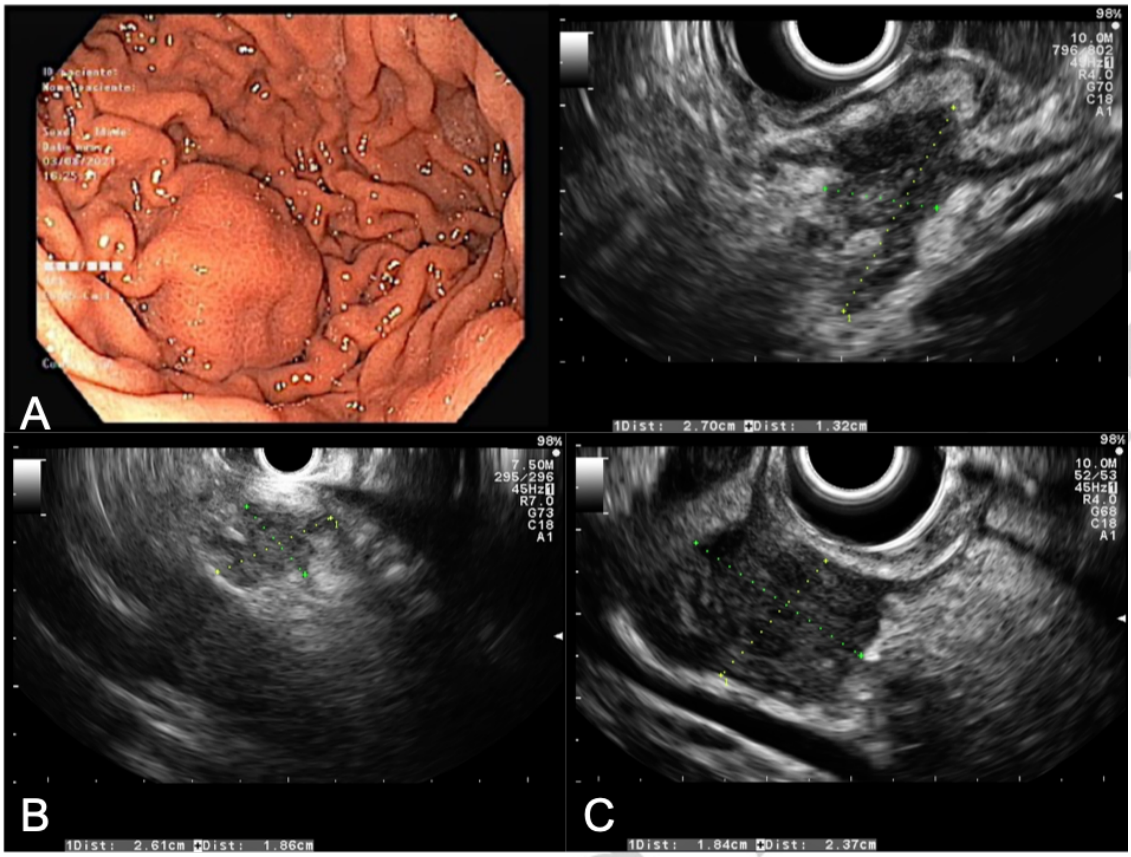

Figure 1. Presentation of abdominal tuberculosis with mixed organ involvement. Note the presence of two subepithelial lesions in the 4th layer of gastric (A) and duodenal (C) wall representing the involvement of the gastrointestinal tract, together with peritoneal involvement in the form of an hypoechogenic lesion adjacent to the spleen.