Non-healing gastro-duodenal ulcer: A rare presentation of primary abdominal tuberculosis

Nabeel Merali *, Pankaj Chandak, Sudeendra Dodd, Prakash Sinha

Department of General Surgery, Princess Royal University Hospital, Farnborough, Common, Orpington, London, United Kingdom

ABSTRACT

INTRODUCTION: We present a case of primary gastrointestinal tuberculosis that has culminated in ulcer formation, in the absence of pulmonary involvement in an immunocompetent patient.

PRESENTATION OF CASE: A 28-year-old Asian male presented to casualty with a 1-week history of epigastric cramping abdominal pain and several episodes of non-bilious vomiting. The patient deteriorated clinically, becoming more cachectic and given his unexplained weight loss, an oesophageal-gastro-duodenal endoscopic imaging confirmed a duodenal ulcer. The biopsy of the non-healing ulcer was the hallmark of the disease, revealing evidence of granulomatous inflammation consistent with tuberculosis bacilli.

DISCUSSION: Gastrointestinal tuberculosis with ulceration is rare with respect to the oesophagus, stomach and duodenum. This case proves to be unique, as our patient had experienced primary isolated gastric tuberculosis in the absence of pulmonary tuberculosis in a healthy individual. Immunohistochemical staining, histopathology and radiological investigations have demonstrated their importance in confirming abdominal tuberculosis and the extent of bowel involvement.

CONCLUSION: This case has illustrated the difficulties associated with a prompt diagnosis of an unusual case of primary duodenal tuberculosis from chronic peptic ulcer disease in an immunocompetent patient.

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1. Introduction

Tuberculosis has infected one third of the world’s population according to the World Health Organisation, with 1% of new cases occurring each year.1 Left untreated, it can become a life-threatening disease. Nevertheless, tuberculosis is preventable and more importantly, treatable. Gastrointestinal tuberculosis can affect any region of the gastrointestinal tract, most commonly the ileocaecal region. The duodenum is an unusual site for tuberculosis and typically occurs due to secondary spread from pulmonary disease. We present a case of primary gastrointestinal tuberculosis in an immunocompetent patient, which has culminated in ulcer formation within the duodenum in the absence of pulmonary involvement.

2. Presentation of case

A 28-year-old Asian male presented to casualty with a 1-week history of epigastric cramping abdominal pain and several episodes of non-bilious vomiting. The patient denied weight loss, fever and melaena. His past medical and surgical history as well as his systematic clinical examination were unremarkable. At presentation, the patient was found to be chronically microcytic anaemic with a haemoglobin of 10.8 g/dL (13.5–17 g/dL) and mean corpuscular volume of 74.3 fL (80–99 fL). After a month, the patient’s symptoms had progressed to a cachectic state and he had lost a stone in weight. Given his unexplained weight loss, a blood test was organised to screen for coeliac disease and human immunodeficiency virus, which was negative.

An abdominal ultrasound demonstrated the presence of multiple echogenic mass lesions in the epigastrum and around the aorta, which were consistent with lymphadenopathy. This raised the suspicion of abdominal tuberculosis and under ultrasound control, fine needle aspirations and core biopsies were obtained. The aspirations revealed caseating material and a negative Auramine stain.

Therefore, no acid-fast microorganisms were found in the direct staining and specific culture of the abdominal lymph node region. Histology from the abdominal lymph node biopsies was non-diagnostic (multiple levels showed fibro adipose tissue). A computerised tomography of his chest, abdomen and pelvis illustrated multiple enlarged lymph nodes within the mediastinum of hypo dense centres (Fig. 1). The lung windows showed