A Case of Tuberculosis Lymphadenitis Mimicking Gastric Tumor

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Abstract

Introduction: Solitary tuberculosis of the upper gastrointestinal tract is a rare pathology that usually mimics the clinical and radiological features of malignant tumors. A gastric subepithelial tumor is usually detected during diagnostic endoscopy. Stomach tuberculosis, in particular, can appear as a subepithelial tumor of the stomach wall. Several cases of gastric tuberculosis imitating subepithelial tumor gastric have been reported recently.

Case report: We describe a case of a Patient with tuberculous lymphadenitis that mimics the submucosal gastric tumor. A 52-year-old female was admitted to our department; endoscopy revealed a submucosal compression or anterior submucosal lesion, erosive anterior gastropathy, and a fistulous orifice located in the bulb. The patient was diagnosed with a gastric tumor and Endoscopic ultrasound demonstrated a rounded antral lesion, hypoechogenic, not vascularized, that is distant from the gastric wall whose 5 layers appear of normal aspect. The patient was operated on for exploratory laparotomy. the biopsy was sent for frozen section examination that concluded to tuberculous intraperitoneal lymphadenitis. The patient received anti-tuberculosis treatment.

Conclusion: Abdominal lymphadenitis tuberculosis is an uncommon situation which presents a dilemma for clinicians, as a great mimicker for a long list of differential diagnoses.

Introduction:

Abdominal tuberculosis can affect many organs in the peritoneal cavity [1], and its presentation is varied depending on the site which is involved [2]. Gastro intestinal Tuberculosis' diagnosis is specifically difficult, moreover gastric Tuberculosis, which is the rarest form, and it is generally misdiagnosed because it can mimic a gastric tumor[3].

We report here a case of mesenteric tuberculous lymphadenitis that had involved the gastric wall and had mimicked a gastric submucosal tumor with no evidence of tuberculosis elsewhere.

Case Report:

A 52-year-old woman, with a history of hypertension, hospitalized in our surgical department for a 3-month history of epigastric pain, and weight loss. She had no fever either respiratory symptoms. Physical examination revealed an epigastric palpable and painful mass measuring 4 cm. There is no cervical lymphadenopathy nor hepatosplenomegaly. laboratory data were normal, and there were no abnormalities on a chest Xray. On upper endoscopy showed a submucosal compression, and a fistulous orifice located in the bulb (Fig. 1). Its biopsy concluded to no malignancy and had no evidence of tuberculosis .

An abdominal CT scan was performed, showing an exophytic, heterogenous gastric formation with an axial necrotic center measuring 44*24mm, associated with multiple tissue nodules of enhanced infra

centimeter size evoking peritoneal carcinosis nodules, and coeliomesenteric lymph nodes (Fig. 2).

Endoscopic ultrasound demonstrated a rounded lesion of about 30*26mm located in the antrum, hypoechogenic, discretely heterogeneous not vascularized, and it is distant from the gastric wall whose 5 layers appear of normal aspect(Fig. 3).

The patient was operated on for exploratory laparotomy due to the prediagnosis of suspected gastric cancer. the surgical findings indicated a bulky mass adjacent to the antrum with posterior development invading the transverse mesocolon, associated with multiple adenopathies of the mesentery, the transverse mesocolon, and the greater omentum, organized inflows (Fig. 4). There was a second mass of 3 cm located in the small omentum in contact with the left gastric artery, which is probably voluminous adenopathy(Fig. 4). the biopsy was sent for frozen section examination that concluded to tuberculous intraperitoneal lymphadenitis. The operation was terminated, because of the benign nature of the pathology. The patient was administered anti-tuberculosis treatment and was closely monitored.

Discussion :

Abdominal tuberculosis is always misdiagnosed because of its various clinical manifestations. It is known as a great mimicker especially when it can affect abdominal organs without pulmonary infection, and malignant tumors are the most incriminating as a preoperative diagnosis [2], [4].

Gastric tuberculosis is the rarest form whether it was a primary or secondary infection [1]. Debi et al. Explain the reasons for its rarity, such as the bactericidal properties of gastric acid, the scarcity of lymphatic tissue in the gastric wall, and the thick gastric mucosa with an intact stomach [5].

Moreover, mesenteric tuberculose lymphadenitis is extremely rare as a cause of intestinal manifestations involving the gastric wall, and recording to the literature, a few cases were reported, showing tuberculosis lymphadenopathy mimicking submucosal gastric tumors such as in our case[1].

Primary gastric tuberculosis (without involving any other organ)is generally located on the antrum or prepyloric region involving the duodenum, and this location is explained by the presence of lymphoid follicles[1], [3].

Clinically, patients generally present nonspecific upper abdominal pain such as epigastric pain, associated with weight loss, anorexia, weakness[3]. So that's why the majority of patients with gastric tuberculosis are often diagnosed after surgery because of the lack of symptoms[1].

Endoscopy is helpful to diagnose this pathology, especially by biopsy results. It can show ulcers, mass, or extrinsic compression[6]. However, in our case, gastric cancer was suspected and the biopsy did not help to confirm our diagnosis. The poor yield of the biopsy is explained by the submucosal lesion that may not reveal granulomas and that is difficult in obtaining tissues[6], [7].

Endoscopic ultrasonography is also very helpful, especially in the case of submucosal lesions or related lymph node enlargement [6]; because it can differentiate between an extrinsic compression and a subepithelial gastric tumor by identifying the relationship between the lesion and the gastric wall[8].

Morphologically, No specific imaging findings can help diagnose tuberculosis rather than malignancy because there are no pathognomonic characteristics showed radiological modalities [4].

Resuming combined radiographic and endoscopic imaging can facilitate an early diagnosis without unnecessary surgical resection, but it is always difficult to have a final diagnosis by endoscopic biopsy so that we can perform a surgical biopsy using frozen section examination[7].

Conclusion:

Abdominal lymphadenitis tuberculosis present a dilemma for clinicians, as a great mimicker for a long list of differential diagnoses. Endoscopic biopsy is the best modality to diagnose it when gastric wall is involved, but it could not be made preoperatively and it requires surgery for diagnosis using intraoperative frozen biopsy.

Declarations

Conflict of interest for all authors:

The authors declare no competing interest.

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Compliance with Ethical Standards:

The patient has provided both verbal and written consent for the publication of This article. It was made sure that his identity will be kept a secret at all levels.

Consent:

Written informed consent was taken from the patient regarding the publication of this case report. It was made sure that his identity will be kept a secret at all levels. A copy of a written request is available for review if requested.

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Author contributions:

All authors were involved in the researching, writing, and editing of the manuscript.

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Figures

Figure 1

Esophagogastroduodenoscopy shows a submucosal compression or anterior submucosal lesion, and a fistulous orifice located in the bulb.

Figure 2

Abdominal computed tomography demonstrates an exophytic, heterogenous gastric formation with a necrotic center.

Figure 3

Radial endoscopic ultrasound shows round mass Located in the gastric antrum, hypoechoic, discrete heterogeneous, without blood vessels, far from the stomach wall.

Figure 4

the surgical findings indicated: (Figure4A) a bulky mass adjacent to the antrum with posterior development invading the transverse mesocolon / (figure4B) A second mass of 3 cm in the greater omentum in contact with the left gastric artery, which may be a huge adenopathy