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CASE REPORT

Gastric abscess after endoscopic biopsy: case report and literature review

Abscesso gástrico após biópsia endoscópica: relato de caso e revisão da literatura

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ABSTRACT

Patient presents dyspepsia, vomiting and epigastric pain one week after upper digestive endoscopy (UDE) with biopsy. Tests revealed elevation of inflammatory markers and contrasted tomography of the abdomen, a circumferential parietal thickening of the gastric body and the anthropiloric region. New UDE showed lesion in the great curvature of the antrum, where the endoscopic biopsy was performed, with purulent secretion and enanthema, consistent with the diagnosis of gastric abscess. Antibiotic therapy and endoscopic drainage evidenced clinical signs of improvement. Third UDE showed resolution of the lesion. Patient was discharged using amoxicillin and clavulanate for 10 days.Gastric abscess is a rare infection of the submucosa and the muscle layer. The pathogenesis involves a focus of injury to the gastric mucosa by penetrating trauma, dissemination of contiguous infections, sources of infection or idiopathic cases. Epigastric discomfort is the predominant symptom, associated with nausea, vomiting and fever. Laboratory changes include leukocytosis with left shift and elevation of inflammatory markers. Propaedeutics is performed by means of UDE, abdominal CT and echoendoscopy. The culture of purulent drainage is useful in diagnosis and treatment, Streptococcus is the most common pathogen. Antibiotic therapy and percutaneous or endoscopic drainage is the mainstay of treatment. Surgery is reserved for diagnostic doubts, failure of less invasive treatments or peritonitis.Due to the rarity of gastric abscesses and the absence of specific markers, the diagnosis requires a high degree of suspicion and must be confirmed by endoscopic and imaging testes. It is also important to include this condition in the differential diagnoses of gastric intramural tumors.

Keywords: Abscess; Gastric; Endoscopic

RESUMO

Paciente apresenta dispepsia, vômitos e dor epigástrica uma semana após EDA com biópsia. Exames revelaram elevação de marcadores inflamatórios e tomografia contrastada do abdome, um espessamento parietal circunferencial do corpo gástrico e da região antropilórica. Nova EDA mostrou lesão na grande curvatura do antro, no local onde foi realizada a biópsia endoscópica, com drenagem de secreção purulenta e enantema, condizente com diagnóstico de abscesso gástrico. Realizados antibioticoterapia e drenagem endoscópica com sinais clínicos de melhora. Terceira EDA evidenciou resolução da lesão. Paciente recebeu alta hospitalar em uso de amoxicilina e clavulanato por 10 dias.O abscesso gástrico é uma rara infecção da submucosa e da muscular própria e sua patogênese envolve foco de injúria à mucosa gástrica por trauma penetrante, disseminação de infecções contíguas, fontes de infecção ou casos idiopáticos. Desconforto epigástrico é o sintoma predominante, associado ou não a náusea, vômitos, febre e calafrios. Alterações laboratoriais incluem leucocitose com desvio à esquerda e elevação de marcadores inflamatórios. A propedêutica é realizada por meio de EDA, TC de abdome e ecoendoscopia. A cultura da drenagem purulenta é útil no diagnóstico e no tratamento, sendo o Streptococcus o patógeno mais comum. Antibioticoterapia, associada à drenagem percutânea ou endoscópica é o pilar do tratamento. Cirurgia está reservada para dúvidas diagnóstica, falha de tratamentos menos invasivos ou peritonite.Devido à raridade dos abscessos gástricos e à ausência de marcadores específicos, o diagnóstico requer um alto grau de suspeição e deve ser confirmado por exames endoscópicos e de imagem. É importante também, incluir essa condição nos diagnósticos diferenciais dos tumores intramurais gástricos.

Palavras-chave: Abscesso; Gástrico; Endoscópico.

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Introduction

Intramural gastric abscess is a rare and potentially fatal form of suppurative gastritis. The pathogenesis involves a direct bacterial invasion of the gastric mucosa or hematogenous and / or lymphatic dissemination from another site of infection.[1] The clinical and laboratory findings are nonspecific, which leads to difficulty and delay in diagnosis.

Case Report

A 56-year-old woman arrived at the emergency room with nausea, vomiting and epigastric fullness. She went throught upper digestive endoscopy (UDE) a week before the symptoms to investigate dyspeptic symptoms (figure 2A).

Upon investigation, laboratory tests suggested inflammation and the computed tomography (CT) of the abdomen showed significant circumferential parietal thickening of the distal gastric body (figure 1).

A new UDE revealed a soft bulging, about 20mm in diameter, on the great curvature of the pre-pyloric antrum, where the endoscopic biopsy was performed, covered by enanthema and with a central orifice showing purulent secretion drainage during manipulation (figure 2B).

The findings were consistent with the diagnosis of gastric abscess and treatment was performed through internal endoscopic drainage, associated with intravenous antibiotic therapy with Amoxicillin with Clavulanate. After 48 hours, the patient evolved with clinical and endoscopic signs of improvement (figure 2C). She was discharged from hospital to complete antibiotic therapy on an outpatient basis. She had no complications.

A mucosal injury caused by an endoscopic biopsy performed in the first UDE was probably the gastric abscesso predisposing factor.

Discussion

Gastric abscess is a rare infection of the submucosa and muscle layer to be considered in the differential diagnosis of intramural lesions of the stomach.

The pathogenesis involves gastric mucosa injury caused by penetrating trauma, sutch as endoscopic biopsy.[1] Similar cases have been described after polypectomy,[2] submucosal endoscopic dissection, [2] transgastric puncture[3] and accidental ingestion of a foreign body.[3]

Usually, the clinical presentation is nonspecific and epigastric discomfort is the predominant symptom. Laboratory changes reveal leukocytosis with left shift and elevation of inflammatory markers, but the specific propaedeutics is performed through UDE, abdominal CT and, more recently, ecoendoscopy.

Currently, antibiotic therapy associated with percutaneous and / or endoscopic drainage is the mainstay of treatment, with surgery being an exception treatment.

Conclusion

Abscesses in the gastric mucosa are rare and the diagnosis requires a high degree of suspicion. They must be included among the differential diagnoses of gastric intramural tumors so that we have an assertive diagnosis and early and appropriate treatment for this potentially serious condition.

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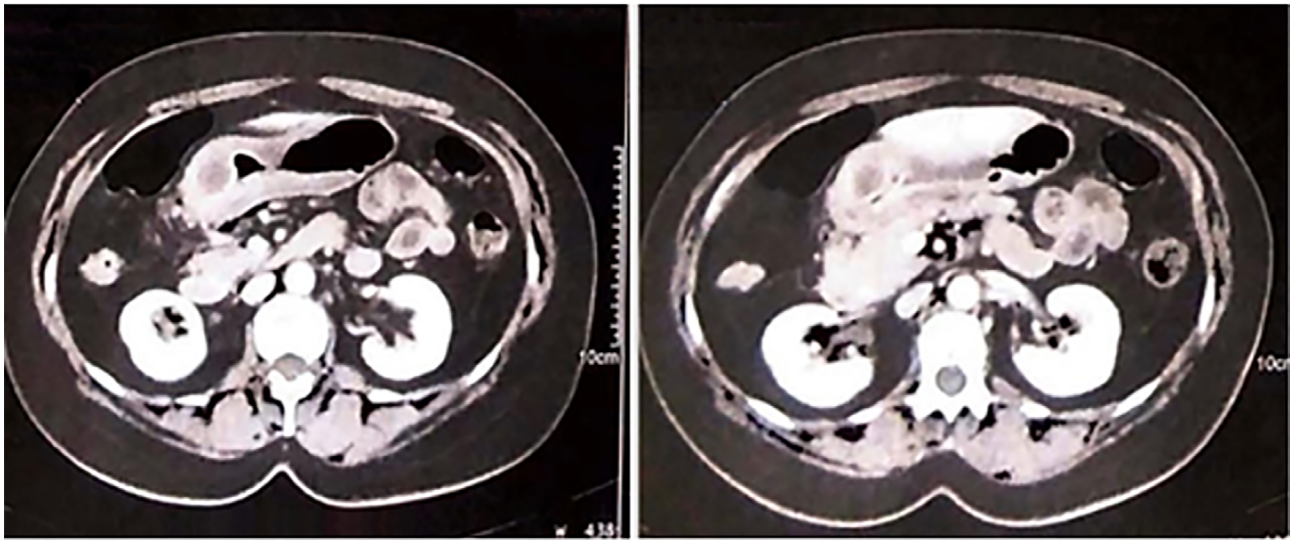

Figure 1. Computed tomography of the abdomen with circumferential parietal thickening in the distal gastric body and in the anthropiloric region, with a hypodense aspect and densification of the adipose planes in the duodenopancreatic sulcus. Reference: Radiology Service of Hospital SOCOR.

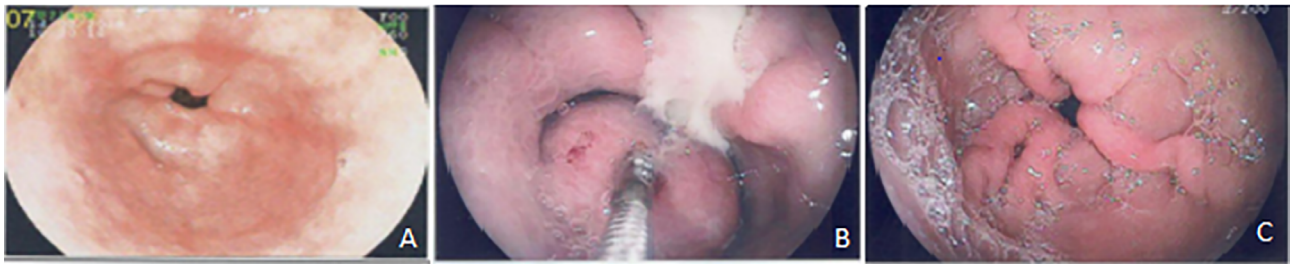

Figure 2. Upper Digestive Endoscopy. A) antrum in initial UDE performed by dyspeptic symptoms. B) antrum in the second UDE with drainage of purulent secretion. C) control UDE antrum, with abscess resolution. Reference: Digestive Endoscopy Service, Hospital SOCOR.

Authors' Contribution:

The first author named is lead and corresponding author. All others are listed in alphabetical order. We describe contributions to the papers using the taxanomy (CRediT) provide above: *Conceptualization, Data curation, Formal Analysis, Investigation, Methodology & Writing – review & editing: Sia Moreira L; Moreira LS. Project administration, Supervision & Validation: Sia Moreira L. Visualization & Writing – original draft:* Moreira LS.

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