

## Phlegmonous gastritis: About a case

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### Abstract

We report an unusual severe epigastric pain with fever in a 70 year old male patient. He worsened considerably in 5 days, going to the emergency department. He had an analysis that indicated infection, so they did a CT scan with results of gastric antritis and he ended up being admitted. During admission, a gastroscopy compatible with phlegmonous gastritis was performed and they found streptococcus pyogenes in the cultures.

### Keywords

Phlegmonous gastritis; Epigastric pain; Endoscopy; Streptococcus pyogenes.

### Abbreviations

CT: Computed Tomography; GIST: Gastrointestinal Stromal Tumor; MALT: Mucosa Associated Lymphoid Tissue

### Introduction

Phlegmonous gastritis is a rare disease of an acute nature with a mortality rate of approximately 50% [1]. The most frequent isolated microorganism is Streptococcus pyogenes in 70% of cases, although escherichia coli, haemophilus influenzae, proteus and clostridium have also been identified [2-5]. Clinically it usually develops in 24 hours, although on other occasions it can last for days. The most frequent symptoms are intense abdominal pain that is usually located in the epigastrium, which can be accompanied by vomiting, fever, diarrhea or hematemesis [3-6]. In about 50% of cases they occur in previously healthy patients [1]. However, risk factors have been described, including immunodeficiencies such as Human Immunodeficiency Virus (HIV), gastric carcinoma, chronic treatment with glucocorticoids, invasive procedures, diabetes mellitus, hepatitis B and C, and alcoholism [7]. In turn, its route of transmission can be through the hematogenous, lymphatic, or by dissemination from another infected area [1].

The diagnosis of this entity is usually made by endoscopy, and even by endoscopic ultrasound [1]. You could see some hypertrophic gastric folds with edema and may become erythematous with fibrinopurulent exudate. Through these techniques, a sample could be taken and through histology an acute inflammation of the gastric submucosa could be observed, being able to isolate the causative microorganism. A CT scan or ultrasound could even be used, showing thickening of the gastric wall with involvement of the underlying fat. All these findings would lead to ruling out other pathologies such as gastric carcinoma, MALT-type lymphoma, GIST or carcinoid tumor [7].

Regarding the treatment, there is some controversy, in principle it would be indicated to treat it with antibiotic therapy as in the case presented, although it could also be treated by surgical resection, being the indicated option in refractory cases and in cases with complications [1,7].

## Case Presentation

We present the case of a 70 year old patient who attended the health center with a fever of 38°C and abdominal pain located in the epigastrium with stabbing characteristics of 1 month's evolution.

In the anamnesis, the history of type II diabetes in treatment with insulin and oral antidiabetics, arterial hypertension in treatment with valsartan and hydrochlorothiazide and dyslipidemia in treatment with rosuvastatin. The patient reported that, coinciding with the fever, the abdominal pain worsened and constipation worsened in the last week, without vomiting. He did not mention recent trips to his country of origin.

The patient was in good general condition with a blood pressure of 135 systolic and 70 diastolic. He did not present changes at the neck level or neck stiffness. Cardiac auscultation was rhythmic without murmurs or rubbing at 72 beats per minute with a pulmonary auscultation with preserved vesicular murmur without added noises and a nondescript abdomen with mild pain in the epigastrium. At that time it was decided to prescribe a symptomatic treatment with analgesia and observe.

Five days later, due to a worsening of the condition, the patient went to the emergency department, presenting good general condition and pain on palpation in the epigastrium with positive decompression and decreased peristalsis. At that time, he had no fever. An analysis was performed where glucose of 350, sodium of 123, C-reactive protein of 348.2, procalcitonin of 4.18, hemoglobin of 10.9 and leukocytosis of 15,300 with a normal venous blood gases. Abdominal ultrasound and abdominal CT were performed, showing findings compatible with gastric antritis. Given these findings, it was decided to admit the digestive tract with empirical antibiotic therapy while waiting for blood cultures that turned out to be negative. During admission, a gastroscopy was performed, which was compatible with phlegmonous gastritis with cultures collected in said test positive for streptococcus pyogenes, for which she was initially treated with intravenous levofloxacin and later with intravenous ceftriaxone, being discharged home with hospitalization. After 4 weeks of antibiotic treatment presenting clinical improvement and resolution of lesions on CT, it was decided to end said treatment.

## Discussion/conclusion

With this case we want to highlight an atypical presentation of epigastric pain accompanied by fever. In the case presented, the symptoms are accompanied by an acute character but it takes a few days for the symptoms to fully develop, and it can occur in this way as described in the bibliography [1].

We wanted to highlight the importance of taking this pathology into account in the differential diagnosis of acute abdomen, in predisposing people and with risk factors for its appearance, because there is a high mortality, and early antibiotic treatment is essential. Although it is true that from the primary care consultation there is some difficulty in being able to diagnose this pathology, due to the impossibility of requesting a CT scan from our consultations and the fact that the requested gastroscopies can be delayed, it could be a good opportunity to be able to use ultrasound. This diagnostic method is accessible from our offices, although it should be taken into account that the findings could be non-specific, it could help to better guide and refer the case from primary care to specialized care.

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