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Gastrointestinal Stromal Tumor of the Cecum Manifested as a Clinical Picture of Acute Appendicitis: Case Report

Quintal Campos Samantha*[1], Bautista Perez Irvint Joel[2], Trigueros Ramirez Darian[3], Lizama Rubio Claudia[4], Noguera Echeverria Alexis Emir[5], Rojas Paredes Roberto[6]

[1] Surgical resident. Hospital General "Dr. Fernando Quiroz Gutiérrez, ISSSTE. Universidad Autónoma de México

[2] Surgical resident. Hospital General "Dr. Fernando Quiroz Gutiérrez, ISSSTE. Universidad Autónoma de México

[3] Surgical resident. Clínica Hospiral Chetumal. ISSSTE. Universidad Autónoma del Estado de Quintana Roo.

[4] Surgical resident. Hospital General "Dr. Fernando Quiroz Gutiérrez, ISSSTE. Universidad Autónoma de México

[5] Surgical resident. Clinica Hospital Mérida. ISSSTE. Facultad de Medicina de la Universidad Autónoma de Yucatán

[6] General Surgeon. Universidad Autónoma de México

ABSTRACT

Gastrointestinal stromal tumors are derived from the intersticial cells of cajal, most of them manifest with non- specific symptoms. A 62 old year male patient complained of right lower abdominal tenderness, surgical procedure revealed a tumor in the cecum. Complete resection was performed. Histology showed a GIST of the cecum. Accordingly, rare tumors of the cecum including GIST should be considered in the differential diagnosis of appendicitis.

KEYWORDS: GIST, appendicitis, tumor of cecum.

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INTRODUCTION

Gastrointestinal stromal tumors are tumors derived from the interstitial cells of cajal, which is considered the gastrointestinal pacemaker cell, constituting a part of the autonomic nervous system of the intestine and controlling intestinal peristalsis. (1-4) The literature reports that the incidence of these tumors varies from 10-15 cases per million people worldwide. (8)

These types of tumors are usually located in the stomach (60% to 65%), small intestine (20% to 35%) colon or rectum (3% to %5); most GIST manifest with non-specific symptoms, early satiety, abdominal distention or vague abdominal pain. (8)

Bleeding may occur and is usually in the form of melena or, less frequently, frank hematemesis. Occasionally they are found incidentally at the time of another surgery (5,6).

We present the case of a gastrointestinal stromal tumor of the cecum simulating acute appendicitis, currently approximately 12 cases have been reported in the literature where a GIST with appendiceal origin or simulating appendicitis has been reported.

CASE REPORT

A 62-year-old male patient, Mexican, administrative employee, with a history of type 2 diabetes mellitus, allergies denied, who started with a picture of colic abdominal pain in the epigastrium of intensity eva 7/10, which radiated to the right iliac fossa, accompanied by nausea and gastroalimentary vomiting on two occasions ; as well as anorexia and fever, 21 hours prior to his admission to the emergency department.

Physical examination revealed a globose abdomen, on auscultation with two peristaltic movements per minute, painful on superficial and deep palpation in the right iliac fossa, Mcburney sign, blumberg sign, rovsing sign, iliopsoas sign, obturator sign and abdominal rebound, all positive.

Laboratory studies were performed, reporting: glucose 146 mg/dl , urea 46.6 mg/dl, urea nitrogen 21.78 mg/dl, creatinine 1.03 mg/dl , sodium 136 mmol/l , potassium 4.84 mmol/l , chlorine 102.8 mmol/l , leukocytes 16. 41 10^3/µL, neutrophils 86.3 % , hemoglobin 16 g/dl, hematocrit 46.2 %, platelets 207 10^3/µL, prothrombin time 13.4 sec, partial thromboplastin time 26.3 sec, INR, 1.18, general urine examination not pathological.

Given the clinical suspicion of acute appendicitis, it was decided to perform an open appendectomy, finding an appendix of normal characteristics with a tumor in the cecum

measuring 10 x 10 cm,(Figure 1) which was abscessed and with ischemic walls, multiple tumor implants throughout the abdominal cavity and in the parietal peritoneum, so a right hemicolectomy with terminal ileostomy was performed. The patient had an adequate postoperative evolution, pharmacological management based on analgesic and antibiotic for 7 days as well as surveillance of the ileostomy output, he was discharged on postoperative day 10 without any eventuality.

During the follow-up, a pathology report was obtained describing GIST of the cecum without angiovascular invasion.

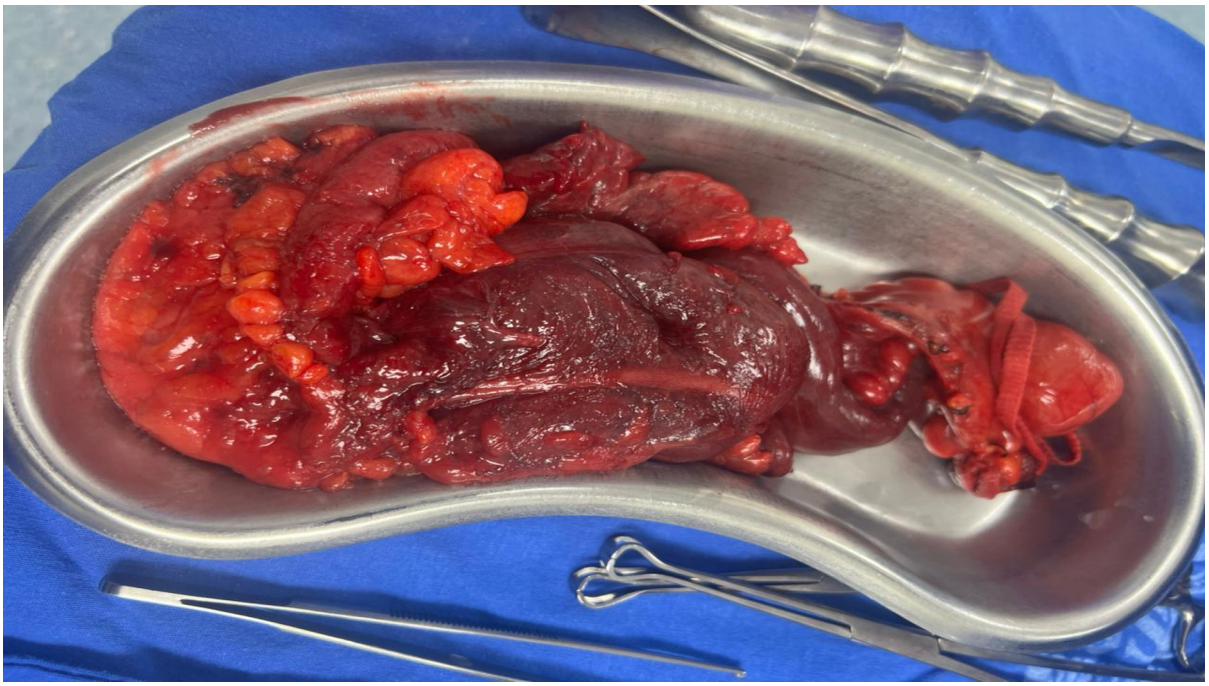

Figure 1.

DISCUSSION

Gastrointestinal stromal tumors arise in the gastrointestinal tract secondary to receptor tyrosine kinase (KIT) mutations. They occur predominantly in middle-aged and elderly adults with a peak in the seventh decade of life (7,8).

GIST tumors first described in 1983 by Mazur and Clark are considered potentially malignant with increased risk depending on size, they are not classified as benign or malignant but are stratified according to their risk of malignancy as very low, low, intermediate or high risk. (9) The best treatment is early diagnosis and resection, however the disadvantage with these tumors is that sometimes they simulate common pathologies with diverse forms of presentation such as ulcerative peptic disease, gastrointestinal bleeding, acute peritonitis, abdominal abscesses or sudden perforation and as in this case, acute appendicitis (10).

Treatment of pathologically confirmed GISTs is primarily surgical in cases without metastases and subsequent administration of tyrosine kinase inhibitors such as imatinib, in the case of tumors that are unresectable, metastatic or recurrent the primary treatment is tyrosine kinase inhibitor. (9,10)

This case describes an unusual presentation of GIST as a characteristic clinical picture of acute appendicitis, with periumbilical pain with subsequent irradiation to the right iliac fossa and vomiting, the intraoperative finding of a GIST is rare but reported in some clinical cases, this type of tumor should be considered as a diagnostic suspicion of acute abdomen due to its probability of being found as the true origin of this and the risk of finding metastatic disease in these patients according to their location and size. To emphasize the need for an adequate approach in patients who present with acute abdomen, and an intentional search for metastatic disease in those patients who incidentally report a GIST in order to obtain an adequate management and thus improve the prognosis of our patients.

CONCLUSION

Gastrointestinal stromal tumors rarely present simulating another pathology, as reported in the literature. They should be considered as part of the differential diagnosis of acute appendicitis.

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CONFLICT OF INTERESTS

The authors have no conflicts of interest to declare.

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