Gastric GIST superinfected by actinomycosis
Case report and review of the literature

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Introduction
Gastro-intestinal stromal tumor (GIST) and intra-abdominal actinomycosis are both uncommon diseases, which can present with non specific symptoms such as weight loss, abdominal pain or sub-occlusion. Both diseases can evolve over a long period of time and can be insidious. They also share similar clinical and radiological features with other solid tumors, such as adenocarcinoma for example. Because differential diagnosis between these two pathologies is difficult, and their treatments very different, histological proof is primordial before initiating any treatment.

Case report
• 56-years old male presented with acute abdominal pain, weight loss and fatigue. Laboratory investigations showed only a mild elevation of the C-reactive protein, and tumor markers were within normal range. Abdominal CT scan showed a paragastric mass without any secondary lesions.
• Gastroscopy found a necrotic cavity communicating with the stomach. No biopsies were performed because of the necrosis, but cytology came back positive for actinomycosis.
• Antibiotherapy with penicillin was initiated. Scannographic control two weeks later showed no improvement, questioning the infectious diagnosis. Furthermore, due to the large lesion, a simple course of antibiotics wouldn’t be sufficient. Therefore, the patient was referred to the Upper-GI unit. Before performing surgical resection, neoplasia had to be excluded because of the different surgical approaches and types of resection.
• A second gastroscopy was performed and biopsies made came back positive for a gastric GIST. Intraoperative status found a large invasive mass from the small curvature until 2 cm under the oeso-gastric junction. Therefore, a total gastrectomy was performed with a D1 lymph node dissection.

CT scan

Gastroscopy: A: Gastric fistula with the mass B: Necrotic cavity

Histological findings
• 12 cm infiltrative GIST with high risk of malignant potential (117 mitosis/fields)
• Immunohistochemistry showed KIT mutation, PDGFRα was normal
• Good indication for adjuvant chemotherapy with imatinib

Discussion
• Standard treatment for actinomycosis consists in long course antibioticotherapy (3 to 6 months), generally penicillin
• Gastro-intestinal stromal tumors can be locally invasive and have a potential of recurrence. Therefore, the first line of treatment is complete surgical resection.
• Gastric GIST usually require local resection while gastric adenocarcinoma require oncologic resection with lymph node resection.

Conclusion
When confronted to an unusual intra-abdominal mass, early diagnosis confirmed with histological proof is mandatory in order to avoid an incomplete or an unnecessary aggressive treatment. Radiologic/endoscopic or surgical biopsies are usually necessary because of the different approaches and treatments, which differ in cases of an infection or a neoplastic lesion.

Reference