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Case Report

Peritoneal carcinomatosis as a pathway of metastatic dissemination in a patient with gastroesophageal junction cancer: case report and review

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ABSTRACT

The oesophageal adenocarcinoma is an increasing pathology in the last decade, predominantly in the western population. A characteristic of esophageal cancer (EC) and esophageal-gastric junction cancer (EGJC) is the high percent of metastatic disease at the time of diagnosis one of the main causes of death in these patients. The present case is about a 78-year-old man, diagnosed with Barrett's esophagus with high-grade dysplasia and stenosis of distal third of esophagus, during surgery we found peritoneal carcinomatosis with implants in gut and no resectably disease.

Keywords: EC, Peritoneal carcinomatosis, Surgery, Surgical oncology

INTRODUCTION

An important characteristic of esophageal and EGJC is that metastases identified in more than 50% of patients at time of diagnosis, while more than 30% will develop metastases during the course of the disease. this being one of main causes of death in these patients.[1,2] Most frequently described sites of metastases are in descending order: liver, distant lymph nodes, lung, bone, and brain.[3,5]

There are limited studies reporting differences in metastatic spread based on the location of the primary tumor, for example, upper EC versus cancer of the lower esophagus or esophagus-gastric junction.[6,7] However, it has been described that peritoneal carcinomatosis is a slightly less frequent form of metastatic presentation when it comes to classic esophageal adenocarcinoma, however it is more common to find it when it comes to adenocarcinoma of the esophageal-gastric junction.[8-10]

CASE REPORT

In the present work we report the case of a 78-year-old male, his comorbidities are arterial hypertension under pharmacological treatment, glaucoma under management with trabatan and timolol, chronic low back pain under management with buprenorphine and celecoxib patches, gastroesophageal reflux disease in occasional PPI management. Initially, the patient was identified in the general medicine consultation and sent to the endoscopy service who, after performing an upper digestive endoscopy and taking biopsies, integrated the diagnosis of Barrett's esophagus with high-grade dysplasia and stenosis of the distal third of the esophagus. The study protocol was carried out during the pandemic, so the

patient interrupted his follow-up visits, returning to our service 18 months later, on his last visit referring progressive dysphagia to solids and recently to liquids, for which we decided to send the service again. endoscopy for reassessment, who performed an endoscopy documenting an exophytic lesion that causes obstruction greater than 50% of the esophageal lumen 5 centimeters above the esophageal-gastric junction (Figure 1), for which the placement of a temporary palliative self-expanding metallic endoprosthesis was decided as symptomatic treatment pending surgical planning. A pathology report of intestinal type adenocarcinoma of the esophageal-gastric junction was obtained, for which the preoperative protocol was initiated and an extension tomography was requested in order to plan the surgery. The CT scan is described without evidence of local, regional or distant residual tumor activity at the time of the study (Figure 2), the self-expanding prosthesis of the esophagus was intact, and a type I hiatal hernia, so it was finally scheduled to perform an Ivor-Lewis esophagectomy, without However, prior to surgery, removal of esophageal stent is requested endoscopically. Patient was hospitalized two days prior to the surgical procedure for preparation, laboratory sampling, and central venous access placement. One day before surgery, the patient was transferred to the endoscopy room where an attempt was made to remove metallic endoprosthesis under sedation. However, during the procedure, the esophagus was documented with adequate morphology, location, and distensibility, the mucosa in its upper two thirds with a surface pink and pale, shiny. Distal third with partially covered self-expanding metallic prosthesis.

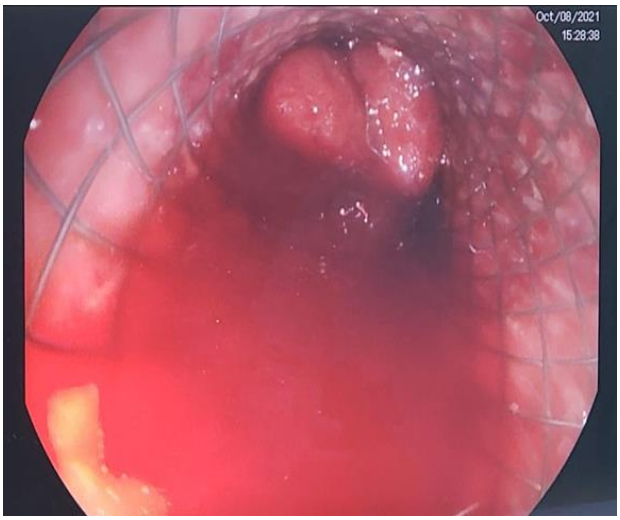

Figure 1: High digestive endoscopy showing a vegetating tumor that has spread through the spaces of the metallic endoprosthesis and obstructs the distal third of the esophagus.

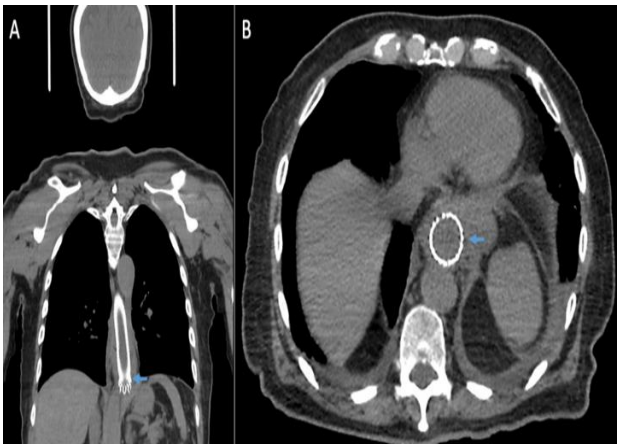

Figure 2 (A and B): Thoracoabdominal tomography with section at the level of the posterior mediastinum, an expandable metal esophageal prosthesis is found at level of distal 3rd of esophagus and esophago-gastric junction. Same endoprosthesis at level of junction without apparent involvement of adjacent structures.

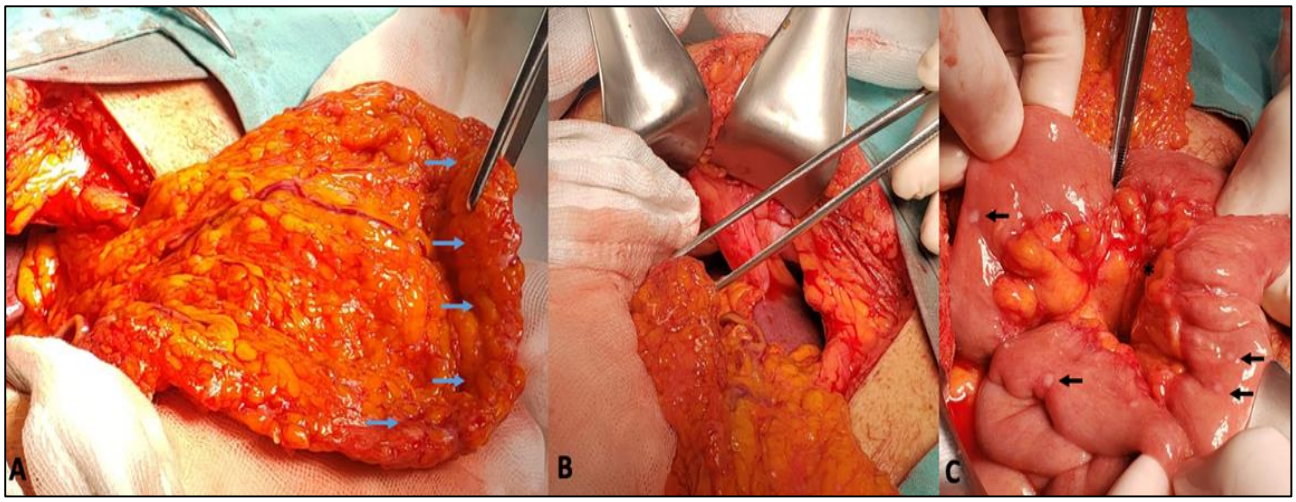

Figure 3 (A-C): Transoperative findings. Supported between branches of dissecting forceps is lower edge of greater omentum, which is seen to be infiltrated and hardened by tumor invasion (arrows). Nodule of metastatic infiltrating tissue at level of omentum approxy 2 cm. Multiple implants of carcinomatosis on wall of small intestine (arrows) and thickening and infiltration of mesentery by tumor tissue (asterisk).

The patient went to the operating room where, under general anesthesia, an incision was made in the supraumbilical midline. After the initial approach, ascites fluid was found in moderate volume, the endoprosthesis was palpated at the level of the esophagogastric junction, surrounded by indurated tissue, corresponding with a tumor of the esophageal-gastric junction, which is palpable through the esophageal hiatus; there are also multiple implants of peritoneal carcinomatosis both in the hepatic capsule and in the wall of the small intestine, greater omentum, and root of the mesentery , colon and stomach, so after identifying and biopsying these lesions (Figure 3), it was decided to perform only a Stamm-type gastrostomy. The procedure lasted 50 minutes, with 20 milliliters of bleeding, 30 minutes after sending the intraoperative samples. the histopathology of high-grade intestinal type adenocarcinoma is reported. After surgery, the patient remained hospitalized for 48 hours, receiving a liquid and porridge diet both orally and through gastrostomy. Upon corroborating the proper functioning of the food access, good pain management as well as the approach by the medical oncology, he was discharged to his home. He was treated with oxaliplatin-based palliative chemotherapy for the ten months and later died from the complications associated with oncological pathology.

DISCUSSION

There is strong evidence on the endoscopic management of cancer of the esophagus and of the esophagus-gastric junction, however, the patient had been categorized as a Siewert type II and staged prior to the procedure in a clinical stage II, so he was scheduled for conventional Ivor Lewis esophagectomy following the recommendations of the NCCN guidelines, however, during the intraoperative period, its pTNM staging was modified to stage IVB, as well as its therapeutic behavior when peritoneal carcinomatosis was identified.[11,12]

Although abdominal computed tomography was used to protocolize this patient, diagnostic laparoscopy could be useful in this case to diagnose radiographically occult metastatic disease as demonstrated Mostafa et al., in their work, considering that the patient presented risk factors for metastasic disease as size of the tumor >2 cm, inferior in location, and macroscopic in nature not flat, as well as type II in the Siewert classification.[13,14] Some studies suggest that all patients with endoscopic ultrasound stage T3/4 disease should undergo diagnostic laparoscopy, but not in earlier stages.[15] In other hand, positive peritoneal cytology in the absence of visible peritoneal implants is associated with poor prognosis and is defined as M1 disease. AJCC guidelines recommends in clinical T3 or N+ disease should be considered for laparoscopic staging with peritoneal washings.[16]

CONCLUSION

This case is evidence of the rapid progression of EC and EGJC, which in our patient had peritoneal dissemination in a period of approximately 18 months, reaching a stage of unresectable disease. Despite the fact that lymph nodes are the main metastatic site of EGJC, extension studies should always be performed at the moment of diagnosis in this cancer study protocol due to the high rate of patients with distant metastases identified during diagnosis of the primary tumor, including peritoneal lavages and endoscopic laparoscopy, considering that peritoneal implants represents a frequent site of dissemination, predominantly in the case of EGJ adenocarcinoma, especially considering types II and III of the Siewert classification.

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