Revista Española de Enfermedades Digestivas
The Spanish Journal of Gastroenterology

Title:
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DOI: 10.17235/reed.2022.9412/2022
Link: PubMed (Epub ahead of print)

Please cite this article as:
Gutiérrez Pérez César, Rodríguez Ledesma Inmaculada, Blanco Abad Carmen, Catoya Villa Juan Luis, Chivato Martín-Falquina Irene, Cuenca Zarzuela Alicia, López Muñoz Ana María. Diffuse gastric adenocarcinoma during pregnancy and genetic counseling. Rev Esp Enferm Dig 2022. doi: 10.17235/reed.2022.9412/2022.

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CC 9412 inglés

Diffuse gastric adenocarcinoma during pregnancy and genetic counseling

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Author contributions: César Gutiérrez Pérez: conceptualization, investigation and writing (original draft, review and editing). Inmaculada Rodríguez Ledesma: methodology and project administration. Carmen Blanco Abad: formal analysis. Juan Luis Catoya Villa: software. Irene Chivato Martín-Falquina: data curation. Alicia Cuenca Zarzuela: resources. Ana María López Muñoz: supervision, validation and visualization.

Conflict of interest: the authors declare no conflict of interest.

Keywords: Genetic counseling. Pregnancy. Stomach neoplasms.

Dear Editor,

We present the case of a 38-year-old female who, in the context of a 22-week gestation, attended the hospital due to epigastric pain and hematemesis. She underwent gastroscopy (Fig. 1A), which revealed two ulcers with a neoplastic aspect in the gastric body, and the biopsy confirmed the finding of diffuse gastric adenocarcinoma. Considering the patient's desire to continue with her pregnancy, the tumor was staged by thoracic computed tomography (CT), endoscopic ultrasound (EUS) (Fig. 1B) and abdominal and pelvic magnetic resonance imaging (MRI) (Fig. 1C).

One month later, a cesarean section was performed, followed by FLOT induction cytostatic treatment (a combination based on fluoropyrimidines, platinum salts and taxanes); after four cycles, the patient underwent Roux-en-Y total gastrectomy. The anatomopathological finding, ypT3ypN3b, reflected the poor response of the tumor to chemotherapy, and foreshadowed the poor outcome of the young mother.

Discussion

Globally, malignant neoplasms of the stomach are the fifth most frequent cancer and the fourth cause of death from cancer (1). Focusing on the present case, the age of the patient and the way in which the cancer presented, genetic counseling should be mandatory to rule out hereditary diffuse gastric carcinoma syndrome (HDGC). This rare entity (5/100,000 inhabitants/year) of autosomal dominant inheritance and closely linked to mutations in the CDH1 (in most cases) and CTNNA1 genes is associated with a greater predisposition to develop malignant neoplasms of the breast and stomach (2,3).

Genetic sequencing ruled out HDGC syndrome. Unfortunately, 24 months after the cesarean section, after an early relapse of the neoplastic disease and four unsuccessful lines of cytostatic treatment, the patient died.

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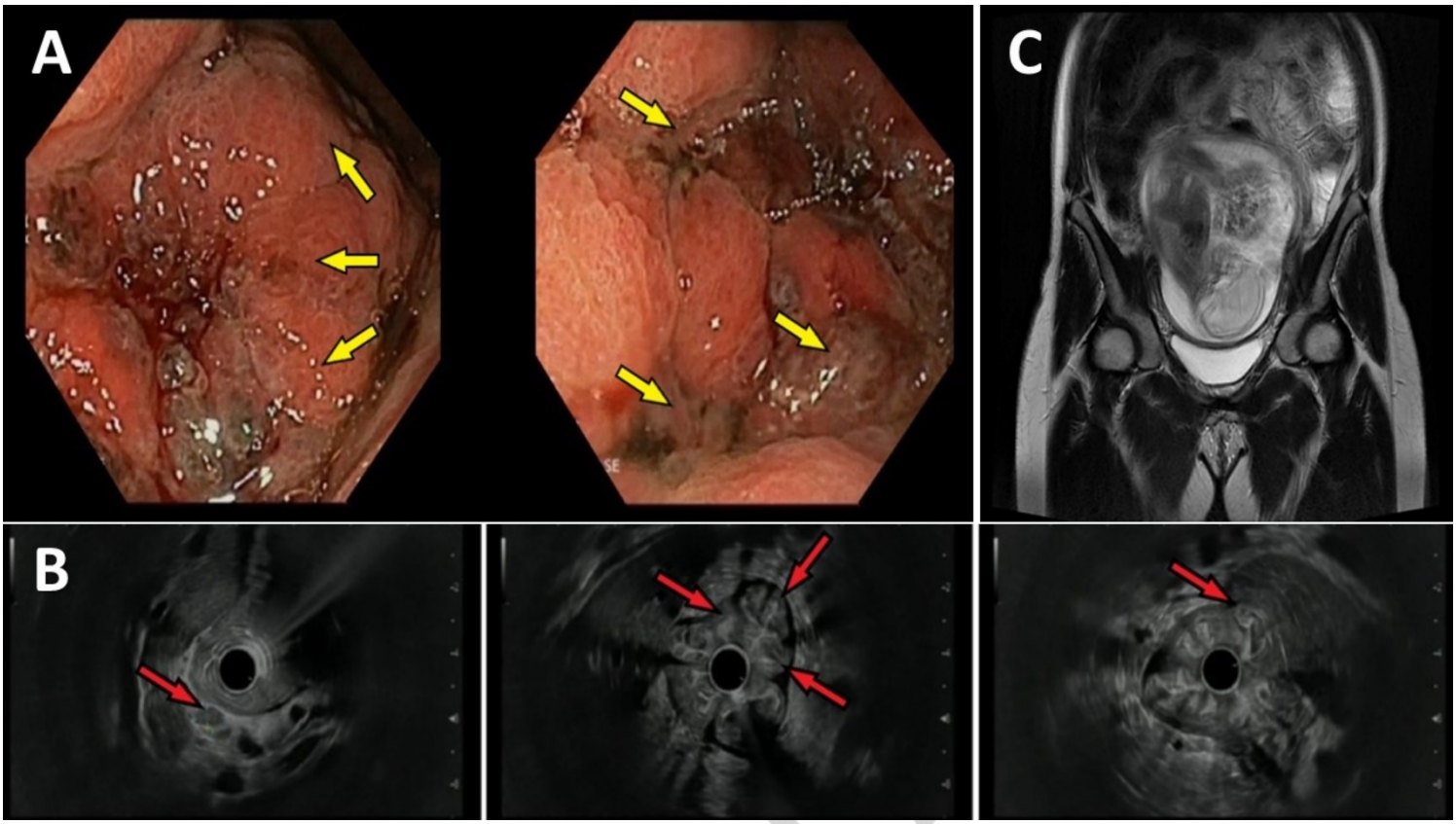

Fig. 1. A. Dark hematic debris and two ulcers in the gastric body suggestive of gastric neoplasia, with irregular, protruding mucosa, as well as very thickened folds. B. There is a marked and uniform increase in the thickness of the gastric wall from the cardia to the pylorus compatible with linitis plastica, as well as several adjacent adenopathies in the celiac trunk. C. Radiological findings depicting the sagittal section of a fetus in its 23rd week of intrauterine development.