CLINICAL CASE

JEJUNAL ADENOCARCINOMA: A RARE ENTITY.

Molino Ruiz L, Ruiz Pages MT, Martín Mantis E, Hens Pérez A, Santamaría Rodríguez GJ
PUERTO REAL UNIVERSITY HOSPITAL. CÁDIZ.

Abstract

We present the case of a 39-year-old woman with epigastralgia, hypermesis and severe weight loss of 6 month´s evolution. Laboratory tests, upper endoscopy, colonoscopy together with inconclusive imaging techniques were performed. Finally exploratory laparotomy was carried out, revealing intestinal obstruction secondary to jejunum tumor. The pathological analysis of the surgical specimen confirmed the diagnosis of invasive jejunal adenocarcinoma.

Keywords: jejunal adenocarcinoma, intestinal obstruction, constitutional syndrome.

Introduction

Jejunal adenocarcinoma is a very rare entity, the most common intestinal adenocarcinoma being that of the duodenum. It is more prevalent in males between the 6th-7th stages of life and usually presents asymptomatically and indolently, with intestinal obstruction associated with abdominal pain and anaemia with an iron deficiency profile being the most frequent forms of presentation. Imaging tests together with a high level of clinical suspicion and thorough anamnesis are the pillars on which the diagnosis of this type of tumour is based, with anatomopathological analysis being essential for definitive diagnosis. The treatment and initial prognosis at diagnosis depend on the tumour stage, with those in a more advanced stage having a worse prognosis.

Clinical case

39-year-old woman, with no family history of interest and a personal history of left hemithyroidectomy for multicystic multinodular goitre 8 years earlier. After presenting with miscarriage due to anembryonic gestation 5 months prior to the onset of the clinical picture, she presented diffuse abdominal

Laura Molino Ruiz
Puerto Real University Hospital. Cadiz.
molinoruiz20@gmail.com

Molino Ruiz L, Ruiz Pages MT, Martín Mantis E, Hens Pérez A, Santamaría Rodríguez GJ. Jejunal adenocarcinoma: a rare entity. RAPD 2024;47(6):215-218. DOI: 10.37352/2024476.3

pain, postpartum vomiting, liquid stools and weight loss of up to 26 kg in the 6 months prior to coming to our clinic.

Primary care performed an abdominal ultrasound with findings of cholelithiasis, upper gastrointestinal endoscopy and colonoscopy, with no abnormalities. Complete analytical study and normal coeliac profile. Calprotectin 846 µg/g.

Given the persistence of symptoms and abdominal pain, prophylactic cholecystectomy was performed in a private centre 2 months prior to the consultation, without any improvement in the clinical symptoms despite the same.

The patient repeatedly visited the emergency department due to persistent abdominal pain, with hyperemesis and progressive weight loss, and was referred to Internal Medicine, which, after a negative study, consulted our department and decided to admit her to the Digestive Department.

Physical examination revealed diffuse abdominal pain, with no clear peritonism, but focusing on the right iliac fossa, even with negative Blumberg, and preserving hydro-aerial sounds. In analytical tests, he already showed signs of renal insufficiency with creatinine at 1.90 mg/dl, GFR 63 ml/min/1.73m2, the rest normal.

The haemogram showed a thrombocytosis of 554,000 /mm3 with normal tumour markers and no other alterations. The abdominal CT scan without contrast showed dilated small bowel loops (jejunum) with liquid content and hydroaerial levels and mucous hyperenhancement, identifying a sudden change in calibre located at the hypogastric level, data compatible with small bowel obstruction secondary to flanges or focal jejunal stenotic segment without being able to determine its nature (Figure 1).

General surgery was contacted for assessment, initially rejecting surgical intervention and opting for conservative treatment. Empirical antibiotic therapy (Ciprofloxacin and Metronidazole) and intravenous corticotherapy were started. The biological study showed only normocytic normochromic anaemia. Tumour markers and calprotectin were normal on this occasion. An attempt was made to initiate oral tolerance, but the patient presented intolerance to this with abdominal pain, vomiting and liquid stools, so a new control abdominal CT scan was performed, which showed persistent dilatation of the proximal jejunal loops of up to 45 mm with the presence of free liquid in the pelvis (Figures 2 and 3). Surgery was contacted urgently and exploratory laparoscopy was performed, identifying after systematic exploration of the small intestine from the ileocecal valve, the stenosis described in the middle jejunum, which caused the retrograde dilatation of the proximal intestinal loops visible in the CT scan up to the angle of Treitz. Two reactive adenopathies were identified adjacent to the vascular axis of the root of the meso of the loop on which the lesion depended.

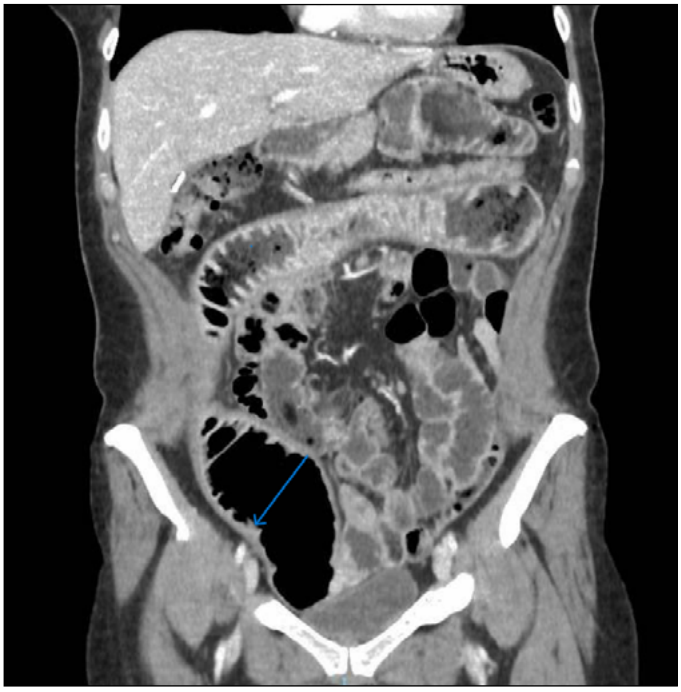

Figure 1. ***Coronal abdominal CT scan showing dilatation of the jejunal loops (blue arrow).***

Segmental small bowel resection was performed for excision of the lesion with safety margins, with mechanical laterolateral jejunojejunal anastomosis and regional mesenteric lymphadenectomy. The anatomopathological report of the surgical specimen was invasive jejunal adenocarcinoma (Figure 4), well differentiated (G1), reaching the muscularis propria layer (pT2), respecting surgical edges and vascular spaces. Negative lymph nodes and MISMATCH REPAIR, MMR not altered (Figure 5). Subsequently, a complete extension study was performed with thoracic CT, ruling out distant disease, so that, together with the anatomopathological data, the patient was diagnosed with stage I adenocarcinoma of the jejunum. The case was presented to the multidisciplinary tumour committee and the patient did not require chemotherapy, and is currently being monitored by the Digestive System, in High Risk Digestive Cancer consultations.

Discussion

Small bowel tumours are a rare entity within the gastrointestinal tract, constituting 5% of all gastrointestinal neoplasms and 1-3% of malignant neoplasms in this location. In general, they are more frequent in males, from 60 years of age onwards. The most frequent malignant tumours of the small intestine are adenocarcinoma and lymphoma,

DOI: 10.37352/2024476.3

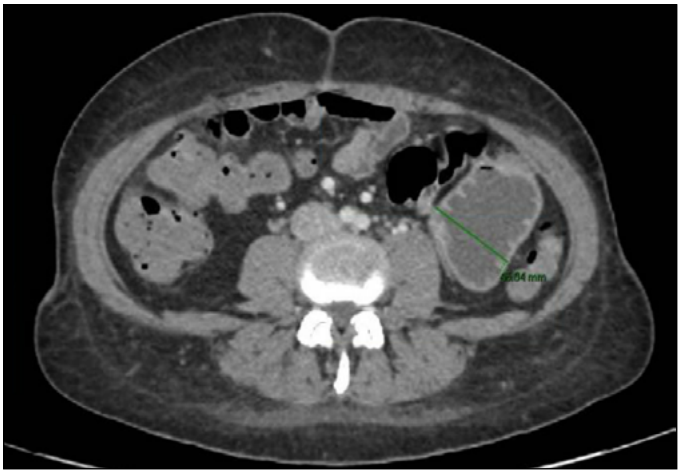

Figure 2. ***Axial abdominal CT scan showing jejunal loop dilatation (green arrow) up to 45 mm in calibre with abundant liquid content.***

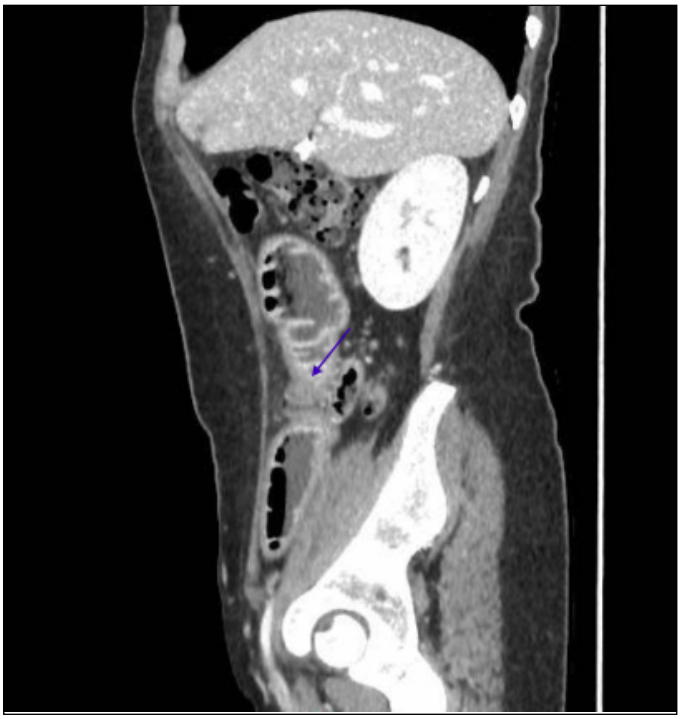

Figure 3. ***Sagittal abdominal CT scan showing small bowel dilatation, some parietal thickening and mucosal hyperenhancement, identifying a point of change of calibre in the jejunum (blue arrow).***

with sarcoma, GIST and carcinoids being less frequent. Adenocarcinoma of the small intestine is the most common malignant tumour, usually originating from adenoma and most commonly located in the duodenum, with adenocarcinoma of the jejunum being less common. Associated risk factors are smoking, obesity, celiac disease, Crohn's disease, a history of colorectal cancer and familial adenomatous polyposis, with the age of onset being lower in patients with these pathologies[1].

The clinical presentation of jejunal adenocarcinoma is non-specific, mostly asymptomatic, although they usually present with abdominal pain in later stages, nausea, vomiting,

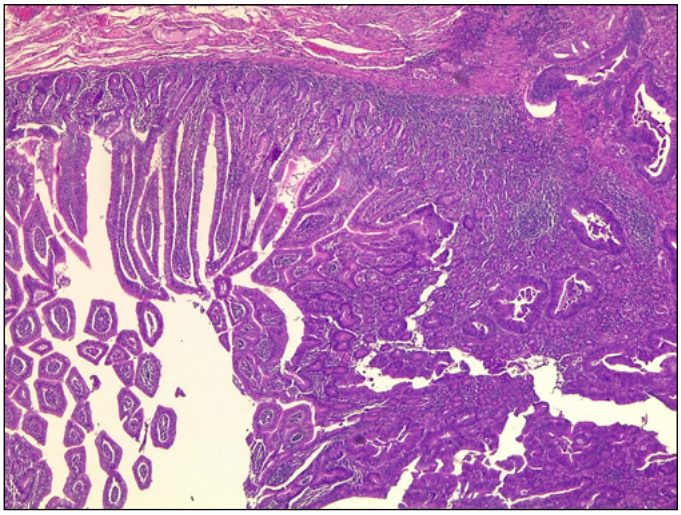

Figure 4. ***Histological section showing morphological changes typical of invasive, well-differentiated intestinal adenocarcinoma, with more than 95% glandular formation.***

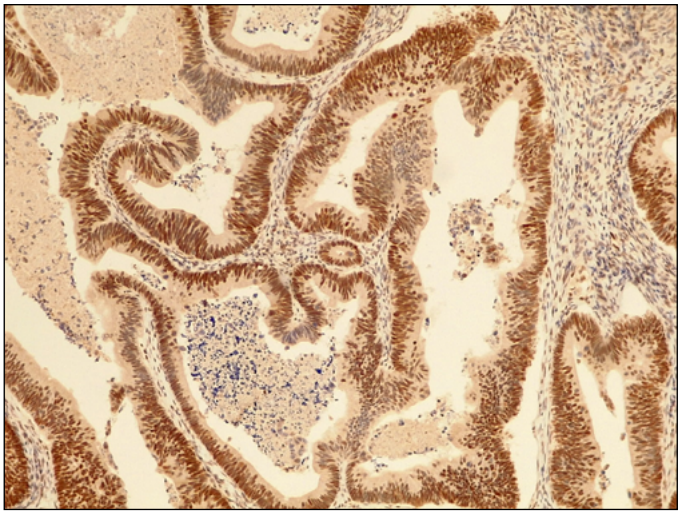

Figure 5. ***Tumour cells showed unaltered immunoexpression of MISMATCH REPAIR.***

weight loss, anaemia, asthenia, anorexia, and may cause pseudo-occlusive symptoms and intestinal obstruction, given that these types of tumours present annular growth, as occurred in our case. More than half of the patients have advanced disease at the time of diagnosis. Malignant jejunal tumours are an entity that are rarely diagnosed preoperatively due to their rarity and non-specific clinical features[2].

The most important causes associated with small bowel obstruction that should be taken into account in the differential diagnosis are intestinal adenocarcinoma, carcinoid neoplasia, lymphoma, gastrointestinal stromal tumours, inflammatory bowel disease, bridles, hernias, biliary ileus, as well as benign neoplasms, although the latter do not usually behave aggressively. There are several theories that attempt to shed light on the low prevalence of these tumours, including rapid transit, liquid intestinal contents, a high concentration

DOI: 10.37352/2024476.3

of digestive enzymes in this tract that detoxify potential carcinogens along with low presence of bacterial populations and the abundant presence of lymphoid tissue[3,4].

Abdominal CT is the main imaging technique for identifying the primary tumour and assessing its extension; sometimes magnetic resonance imaging or capsule endoscopy is used to locate the tumour, although caution should be exercised in patients with clinical suspicion of intestinal obstruction or subocclusive symptoms[5]. What is exceptional in our case is that the patient had no previous potentially obstructive pathologies, at the infrequent age of onset, which led to a delay in diagnosis, with cholecystectomy the previous 2 months via laparoscopy, which we believe also constituted a confounding factor in the delay, since the pain persisted - attributed to the postoperative period/potential flanges - although it was within the average 6 months in which it is usually diagnosed. The striking weight loss and sudden onset anorexia - which could initially be attributed to an eating disorder - were the guiding symptoms that eventually led to the diagnosis.

The treatment of these types of tumours is mainly based on extensive surgery to resect the tumour with regional lymphadenectomy. If there is lymph node involvement, treatment is completed with postoperative chemotherapy. Treatment depends on the tumour stage of the patient. However, the use of neoadjuvant chemotherapy is not yet well defined in these tumours. In unresectable adenocarcinomas, palliative chemotherapy is indicated, and if there is also extensive occlusion of the jejunal lumen, palliative resection is indicated.

In any case, given the infrequency of primitive tumours of the small intestine, they constitute a real diagnostic challenge and their paucisymptomatic onset up to advanced stages requires a thorough anamnesis and a high index of initial suspicion to avoid delays in treatment, with exploratory laparoscopy being necessary in some cases, such as ours, to identify the lesion and analyse the surgical specimen.

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DOI: 10.37352/2024476.3