

Other less frequent findings include: edema or periaortic gas, multiple aneurysms or vertebral abnormalities.^{7,8} There are no characteristic tomographic signs for *C. fetus* infection; nevertheless, the majority of the cases reported show evidence of a retroperitoneal fibrous reaction.⁶ CT angiography at admission of our patient showed increased periaortic fat density, and the second demonstrated an important retroperitoneal fibrotic reaction.

The surgical approach is controversial. The classical option of extracorporeal membrane oxygenation with aortic ligation is not free of complications, such as rupture of the stump or long-term low permeability of the bypass. Aneurysmatic resection and reconstruction using in situ bypass is the preferred procedure for stable patients with localized infection and low risk for systemic infection, accompanied by extensive debridement and prolonged antibiotic therapy.⁹ Chun-Hui described similar long-term survival rates between extracorporeal repair and in situ bypass, although with greater postoperative complications.² Currently, endovascular treatment is attractive as a "bridge" procedure in unstable patients, given the elevated morbidity and mortality of open surgery.⁴ Regardless of the technique, wide-spectrum antibiotic therapy is a constant and should be initiated empirically for a minimum of 4–6 weeks. In the case of *C. fetus*, imipenem is the antibiotic of choice.^{2,3}

In conclusion, aneurysms infected by *C. fetus* are uncommon. They should be suspected in immunocompromised patients in whom surgery should not be delayed due to their rapid growth and high rate of rupture.

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Non-functioning Primary Neuroendocrine Tumor of the Liver With Extension to the Celiac Trunk[☆]

Tumor neuroendocrino primario hepático no funcionante con extensión a tronco celiaco

Primary hepatic neuroendocrine tumors (PHNET) are extremely rare,^{1,2} which make them challenging both for diagnosis and treatment. Likewise, their classification as primary tumors requires an exhaustive diagnostic study to demonstrate the absence of disease at other levels,^{3,4} histologic

confirmation and prolonged follow-up to rule out the existence of another undiagnosed primary tumor.

We report the case of a patient who was successfully treated with radical surgery that required resection of the hepatic artery (Appleby technique).

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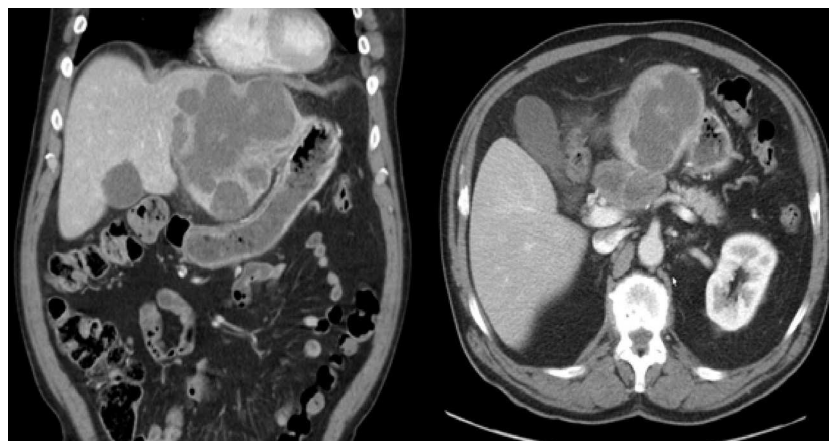


Fig. 1 – CT scan showing a 12 cm tumor mass in the left liver lobe, together with a 6 cm lymph-node conglomerate in the celiac trunk and infiltration of the common hepatic artery.

The patient is a 71-year-old male who reported epigastric pain radiating toward the right hypochondrium, accompanied by a sensation of postprandial fullness and vomiting in recent hours. Upon examination, he experienced pain during palpation of the epigastrium and right hypochondrium, and a mass was palpated in the epigastrium with hepatomegaly of 2 finger widths.

Abdominal ultrasound showed a large solid mass that distended and deformed the left hepatic lobe. CT images were compatible with a polylobed hepatic neoformation, which was probably primary and had uncertain extension to the body of the pancreas and celiac trunk (Fig. 1).

After an extensive study during hospitalization, we ruled out the existence of extrahepatic disease. Tests included upper gastrointestinal endoscopy, colonoscopy, bronchoscopy, MRI, PET-CT and octreoscan with no radiotracer uptake. Lab work-up showed elevated levels of CA 125 62.45 U/mL, neurospecific enolase 370 ng/mL and chromogranin A 605 ng/mL. Gastrin, somatostatin, histamine, glucagon, CEA and AFP levels were normal.

Percutaneous liver biopsy provided histological and immunohistochemical diagnoses that were compatible with neuroendocrine carcinoma.

During surgery, a tumor was observed in segments II-III, and a 6 cm lymph-node conglomerate was seen in the celiac trunk with extension to the body of the pancreas. No extrahepatic mass was observed.

We proceeded with segmentectomy II-III and *en bloc* splenopancreatectomy with the pancreatic body and tail. The lymph-node conglomerate extended toward the celiac trunk and infiltrated the common hepatic artery. After clamping, the proper hepatic artery had adequate flow through the large gastroduodenal artery, and hepatic perfusion was not affected. We therefore decided to perform *en bloc* resection with the tumor, using no hepatic revascularization (Appleby technique). The patient was discharged on the 9th day post-op, with no further incidents.

The histologic and immunohistochemical studies of the liver and lymph-node conglomerate determined the mass to

be a G2 neuroendocrine tumor. The pancreas and spleen were free of relevant histologic alterations.

Eighteen months after the procedure, there was no tumor recurrence.

Neuroendocrine tumors (NET) are comprised of a group of different neoplasms. Their origin is diverse, predominating in the neural crest, thyroid, lungs, endocrine glands, pancreas and gastrointestinal system (54.4%), especially the appendix and terminal ileum. It is therefore important to review previous surgeries, such as the histology of a previous appendectomy, for instance.^{1,5,6}

Growth rates as well as local and general dissemination are relatively low compared to other malignant neoplasms.

The differential diagnosis includes hepatocellular carcinoma, cholangiocarcinoma and metastasis.

There is no evidence of a relationship with cirrhosis or a history of liver disease.⁷

PHNET can appear at any stage of life, and its most frequent form of appearance is as a single liver mass.^{1,8} Lymphadenopathies may appear in the celiac trunk in 60% of cases.⁶

Symptoms are generally nonspecific, and findings are usually incidental. In advanced stages, abdominal pain is related with the mass effect.¹

In patients with no chronic liver disease and extrahepatic mass, normal levels of alpha-fetoprotein and cystic changes of the mass, together with diarrhea and abdominal pain (carcinoid syndrome), the diagnosis of functioning PHNET should be considered. In these patients, it is recommended to extend their study with 5-HT, CgA and 5-HIAA tests.¹

This syndrome is present in only approximately 5%-10% of cases of PHNET, so they are endocrinologically more silent than extrahepatic carcinoid metastases.⁶ Gastrin is the most frequently responsible hormone, and chromogranin A is the most useful marker.^{6,8}

Markers AFP, CEA and CA 19.9 lack diagnostic value. Chromogranin A has a sensitivity of 87%-100% and a specificity of 92%, and can also be used as a marker for tumor recurrence.^{4,5}

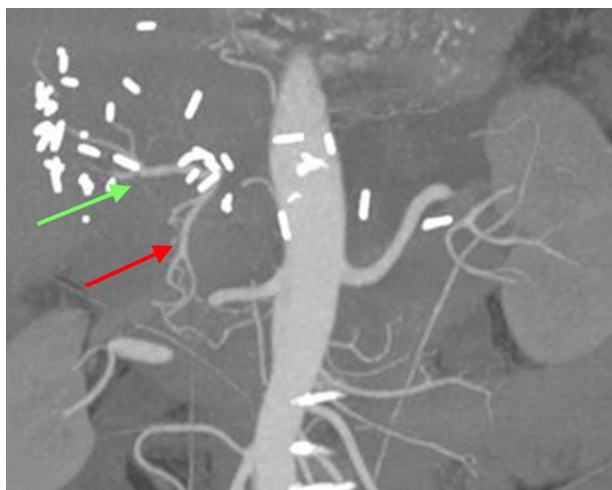


Fig. 2 – CT angiogram 15 days after surgery showing hepatic vascularization through the gastroduodenal artery (red) and proper hepatic artery (green).

As for the use of diagnostic biopsies, there is no clear consensus. Postoperative pathology studies are advocated as being the main definitive diagnostic method.⁴

Octreotide scintigraphy has a specificity close to 83%, thanks to the high affinity of octreotide for somatostatin receptors.^{1,5} Classic PET-CT with 18-FDG provides little information.

The gold-standard treatment is surgical resection, which provides a 5-year survival that ranges from 74 to 92.5%. Nonetheless, it also has recurrence rates close to 19%, which means that adjuvant therapy should be considered.^{7,9}

In our patient, the preoperative diagnosis by biopsy allowed us to plan for radical surgery. R0 surgery was performed with resection of the common hepatic artery. This technique, known as the Appleby procedure,¹⁰ has been demonstrated to be safe, while increasing survival and ensuring the resectability of locally advanced tumors with vascular invasion. The tumoral obliteration of the common hepatic artery probably favored the vicarious hepatic vascularization through the gastroduodenal artery, as demonstrated by CT angiogram 2 weeks after the procedure (Fig. 2).

In short, although the diagnosis of PHNET is sometimes not early, surgical resection is the best option and provides the most favorable results.

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Intestinal Tuberculosis[☆]

Tuberculosis intestinal

In our setting, tuberculosis is on the rise because of factors such as inadequate patient treatment, HIV-related immuno-

suppression, resistance to treatment and declining socio-economic conditions due to immigration.^{1,2} Therefore, it should

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