

Case report:

Carcinoid tumour in the second part of duodenum

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Case history:

We present a case of a 64 years old female patient, without relevant history of past illness. This patient presented with painless and progressive jaundice and weight loss of three months duration. She also had anorexia, dark urine and pale stools.

On physical examination (PE), patient was alert, had a prominent abdomen with moderate ascites, normal peristalsis, without peritoneal irritation. No abdominal masses were palpable.

Investigations:

Blood investigations showed, Leucocytes 14,000/uL, with 80.7% neutrophils, 12% lymphocytes, platelets 190,000/uL, hemoglobin 12.4 g/dL, and hematocrit 39%. Plasma bilirubin level was 27.5 mg/dL, direct bilirubin 18.5 mg/dL, albumin 2.2 g/L, LDH 305 u/L, AST 103 u/L, ALT 55 u/L, alkaline phosphatase 298 IU/L, serum amylase and serum electrolytes were within normal limits. Blood cultures, viral serology (including hepatitis and HIV), were negative.

Abdominal ultrasound scan showed a liver with parenchymal reticular pattern, dilated biliary tree and distended gallbladder with evidence of gallstones, pancreas with homogeneous pattern, with hypo echoic lesion of 13mm in the head. There was moderate ascites.

CT scan of abdomen showed diffusely hyperdense liver, gallbladder with gallstones, and duodenal stenosis at second part, besides evidence of ascites.

Upper GI endoscopy showed esophagitis grade II at distal oesophagus, hiatal hernia (3 cms), nodular gastropathy at fundus, base and antrum. Pylorus was lateral and deformed with peripheral inflammatory reaction, between bulbs and second portion of duodenum. There was near total obstruction of the second part of duodenum and the narrowed area appeared grey-red, soft and hemorrhagic (fig. 1). Biopsy revealed a carcinoid tumour invading the muscularis mucosa. Histopathologically, the tumour consisted of cells with an eosinophilic cytoplasm and uniform, oval hyperchromatic nuclei (fig. 2). The patient

declined to undergo surgery, but she agreed for a nasobiliary drainage.

Discussion

Carcinoid tumours are relatively uncommon and are well-differentiated neuroendocrine tumours (3). They arise from enterochromaffin cells and are found most often in the gastrointestinal tract. Carcinoid tumours arise most often within the gastrointestinal tract and are classified traditionally according to their site of origin within the embryologic subdivision of the gut: foregut, midgut and hindgut. Foregut carcinoid tumours, including those of the stomach, pancreas, and duodenum, are less well characterized but have been shown to exhibit substantial differences in clinical behaviour depending on the organ origin. Carcinoid tumours of the duodenum are indolent. The presence of regional lymph node metastases cannot be predicted

reliably on the basis of tumour size or depth of invasion and their impact on survival is uncertain. Duodenal carcinoid tumours are uncommon and the symptoms can be varied, classified in four clinic forms: painful, icteric, stenotic, and metastatic (2). In our patient, the form of presentation was icteric and stenotic. Carcinoid tumours located at the ampulla of Vater or in the periampullary area, more frequently present with jaundice (60%) and cause biliary dilation but also frequently cause abdominal pain, nausea, diarrhoea or vomiting (3).

The majority of patients with duodenal carcinoid tumours die of other causes, confirming the indolent nature of this disease (1). Because more than 90% of carcinoid tumours do not cause a clinical functional syndrome and are not associated with advanced disease with liver metastases, the principal treatment is their removal, either surgically or endoscopically (3).

References:

1. Mullen JT, Wang H, Yao JC, et al. Carcinoid tumors of the duodenum. *Surgery* 2005;138:971-8
2. Pila-Perez R, Pila-Pelaez R, Rivero-Sanchez M, Guerra Rodriguez C. Tumor carcinoide del duodeno. A propósito de un nuevo caso. *Arch Med Camagüey* 1998;2(2)
3. Hoffmann KM, Furukawa M, Jensen RT. Duodenal neuroendocrine tumors: Classification, functional syndromes, diagnosis and medical treatment. *Best Pract Res Clin Gastroent* 2005; 19(5): 675–697

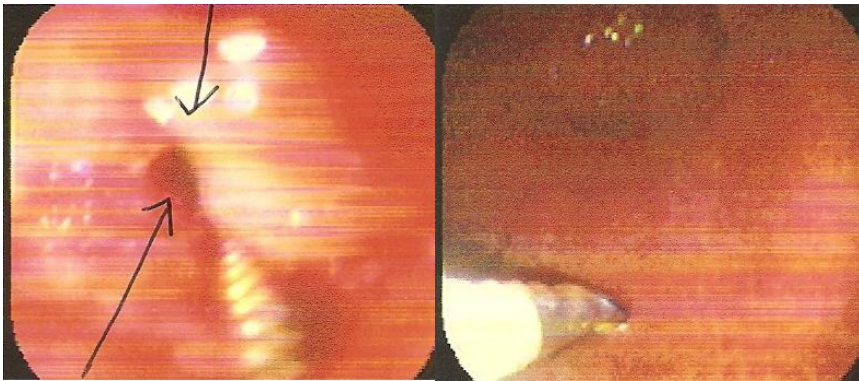


Figure 1, 95% of stenosis of duodenum and collocation of naso-jejunal probe by endoscopy

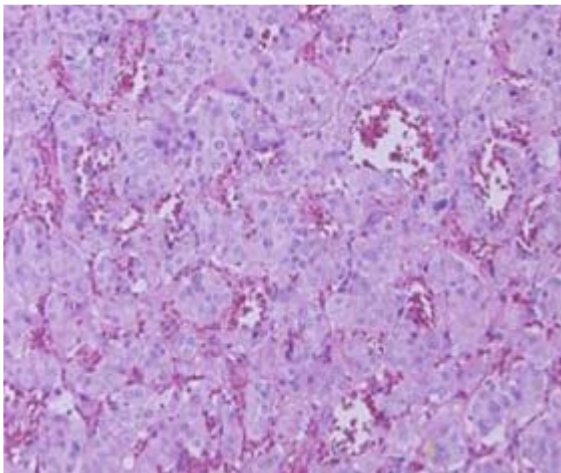


Figure 2. Haematoxylin and eosin tincture. Observe the cells with aneosinophilic cytoplasm and uniform, oval hyperchromatic nuclei (orig. mag. x100).

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