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Primary Mesenteric Carcinoid-A Case Report

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ABSTRACT: *Carcinoid tumours are rare, slow-growing neoplasms that display neuroendocrine properties. The mesentery is usually involved secondary to direct infiltration from the involved bowel or by metastatic involvement. Primary mesenteric NET has been rarely reportedand liver metastasis is still rarer.*
KEYWORDS: *mesentery, carcinoid*

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I. Introduction:

The neuroendocrine tumour (NET) arises from neuroendocrine or the Kulchitsky cells.They usually arise from the gastrointestinal or bronchopulmonary systems. They primarily involve the midgut, followed less commonly by the appendix. Most are discovered incidentally and the small bowel tumours pose special difficulty in detection and treatment.

Case report: A 38yearold male patient presented with dull aching abdominal pain,loss of appetite and diarrhea for two weeks.There was no history of jaundice, mass, constipation or weight loss.The physical examination was normal.Laboratory examination revealed unconjugated hyperbilirubinemia.

Imaging findings:
Abdominal ultrasound revealed multiple well defined iso-hypoechoic lesions of varying sizes largest measuring 22 x 16 mm in segment VI of liver showing internal vascularity.

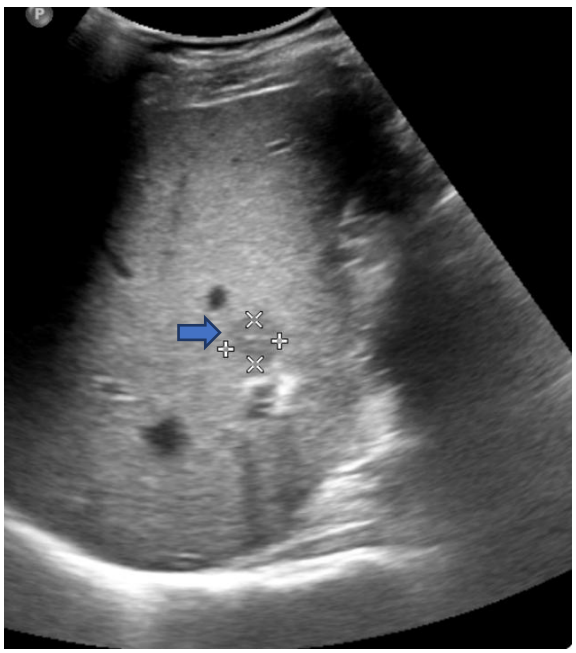

Figure 1: Ultrasound abdomen shows a well-defined hypoechoic lesion in the segment V of liver.

Computer tomography(CT) revealed a well-defined soft tissue density mass (45-68 HU) measuring 19 x 18 mm with peripheral radiating fibrotic bands in the mesentery (vascular retraction)
Multiple relatively hyperdense lesions (40-52 HU) of varying sizes were seen in both lobes of liver.On contrast enhanced CT,mesenteric and liver lesions showed intense enhancement with contrast with early contrast washout.
There was no evidence of enhancing mass lesion in the gastro-intestinal tract.
Based on these findings,primary mesenteric carcinoid with liver metastasis was diagnosed.

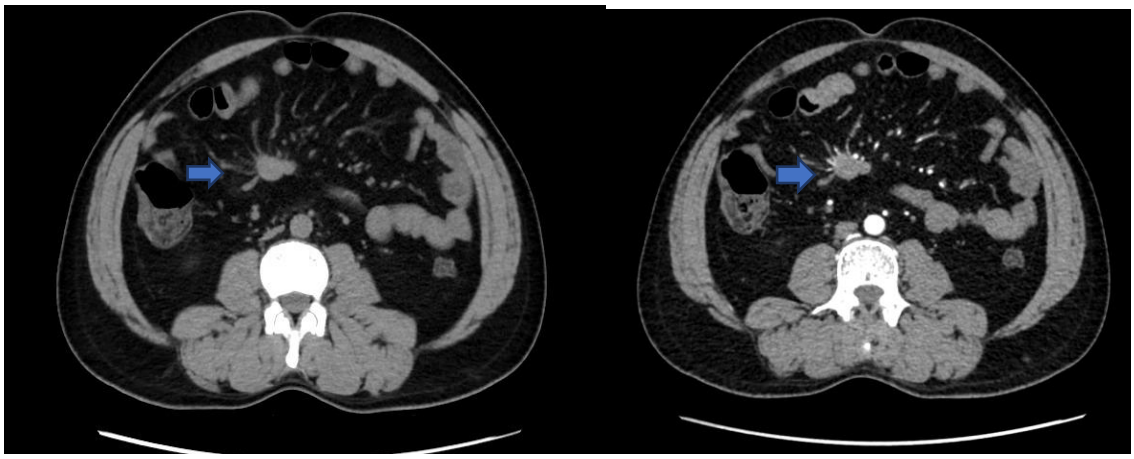

Figure 2 and Figure 3:Non contrast (Fig 2) and contrast enhanced CT (Fig 3) Axial images of the abdomen shows a spiculated isodense lesion showing homogenous enhancement with contrast measuring 19 x18 mm in the mesentery, with radiating fibrotic bands surrounding the lesion

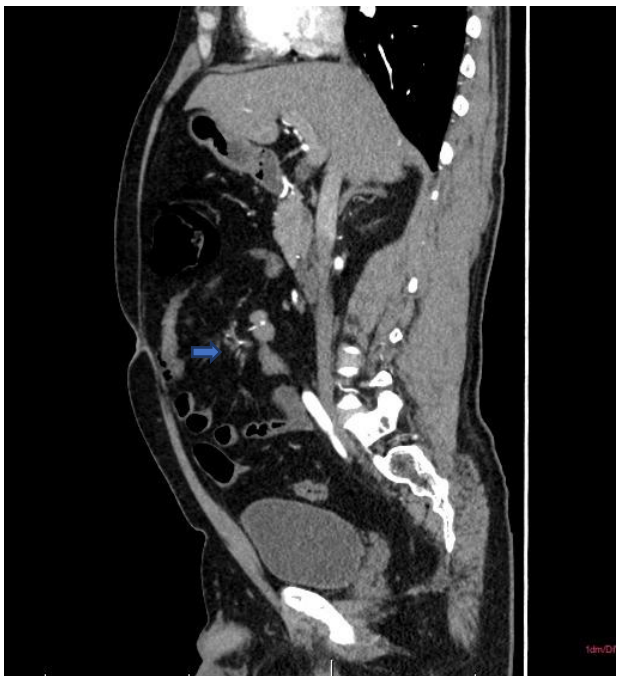

Figure 4: Contrast enhanced CT Abdomen Sagittal image showing isodense lesion showing homogenous enhancement with contrast in the mesentery.

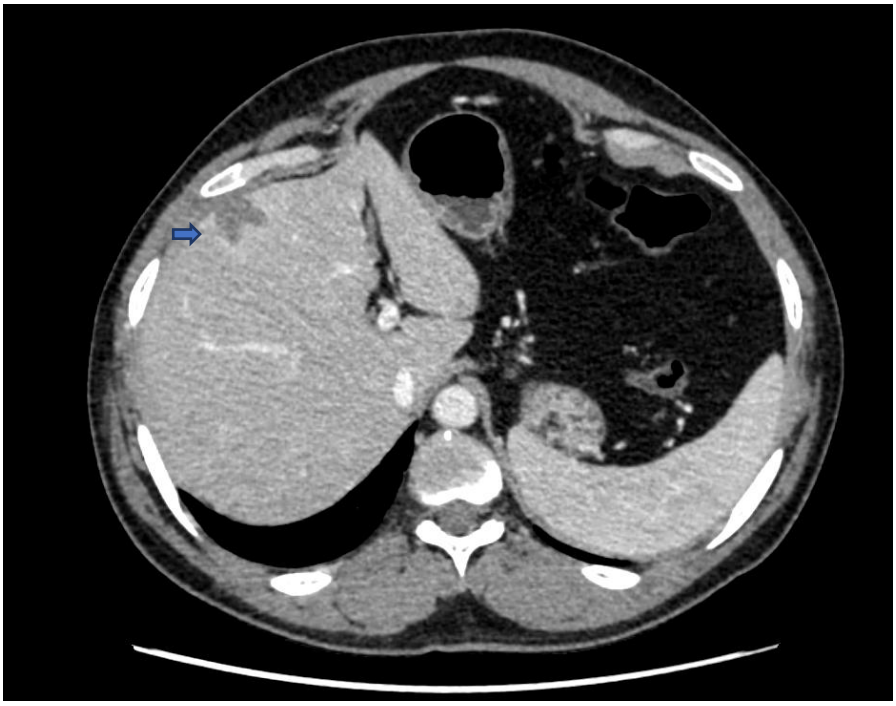

Figure 5:Axial contrast CT image shows subcapsular, peripherally enhancing hypodense lesion in the segment V of liver.

Ultrasound guided biopsy from the liver lesions was advised
Histopathology: Showed multiple linear cores of linear cell infiltrated by tumour nests,cords and glands pattern with pleomorphism and hyperchromatic nuclei.Foci of necrosis and normal hepatic parenchyma noted within. Immunohistochemistry showed tumour to be positive for multiple neuroendocrine markers including synaptophysin and pancytokeratin.

II. Discussion:

Primary mesenteric carcinoid tumour is rare and displays neuroendocrine properties. They can be found throughout the different regions of the gastrointestinal system, although they have predilection for the ileum[1]. They often present an indolent growth and tend to infiltrate the gastrointestinal wall, extending to the mesentery in 40-80% of cases[3]. Thus, solid neoplasms arising in the mesentery are usually metastatic lesions, while primary neoplastic involvement is extremely infrequent.Carcinoid tumours often have advanced malignant potential depending on location,size and nature[2].Due to indolent course of tumour,non-specific symptoms, delayed diagnosis is common and thus patients present in an advanced stage. The diagnosis of carcinoid syndrome is done by demonstrating the presence of secreted substances by measuring chromogranin A and quantifying urinary excretion of 5-HIAA[4]. Approximately half of carcinoid patients present with liver metastasis. Distant metastasis rates from carcinoid tumours increase upto 80-90% when size of tumour is larger than 2 cms.

Somatostatin analogues are the first line of treatment for the unresectable advanced disease.Surgical excision is the main treatment for carcinoid tumour. Larger tumours are usually associated with locally advanced or distant metastasis[5]. Also, surgical debulking of local or distant metastatic carcinoid tumours is recommended, both for relief of symptoms and prolonged survival
Differential diagnosis List:
1.Sclerosing mesenteritis.
2.Secondary Carcinoid
3.Lymphoma
Final diagnosis: Mesenteric carcinoid with liver metastasis.
Conclusion: NETs in the mesentery arise from metastasis from primary tumor, and carcinoid syndrome in this setting results from concomitant metastasis to the liver. Primary mesenteric carcinoid tumours are very rare,but still they should be considered in the differential diagnosis.

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