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Pancreatic Neuro-Endocrine Tumor A Case Report Review of Literature

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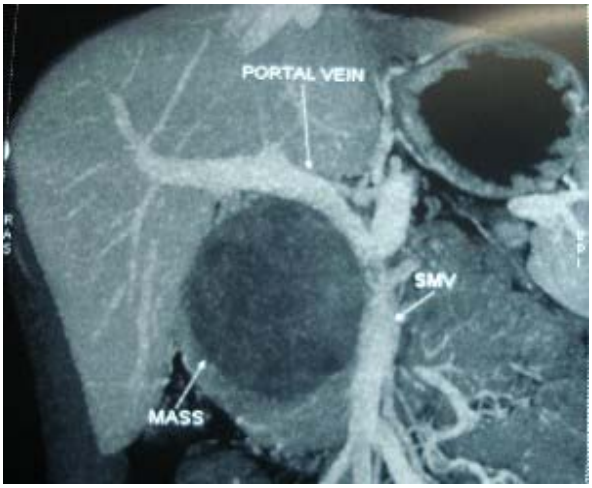
Abstract :
A 14-year-old boy was evaluated for a large mass in the head of pancreas and underwent Whipples procedure with saphenous vein patch repair of the Superior mesenteric-portal vein confluence. The final histo-pathology report was a well differentiated neuroendocrine carcinoma of the pancreas. The clinical presentation, operative post operative management is discussed.Pancreatic Neuro-Endocrine Tumors(PNETs) are rare malignancies and compared to adenocarcinomas they have an indolent course with better prognosis. Malignant PNETs constitute one percent of pancreatic cancers by incidence 10 percent of pancreatic cancers by prevalence. They are clinically classified as non-functioning functioning tumors (hormonomas). The mainstay of treatment is complete excision. Pathological features, Immunohistochemical studies genetic analysis play a role in the management of these tumors with recent developments in the management of advanced tumors with targeted therapy, somatostatin analogues biological agents.
Keyword : Pancreatic Neuro-Endocrine tumor, Portal vein repair, Whipple's procedure

Introduction: **Pancreatic Neuro Endocrine Tumors (PNETs)** are rare malignancies constituting approximately 1%to 2%of pancreatic tumors, leading to an overall incidence of 1 to 2 cases per 1,000,000. Compared to adenocarcinomas they have an indolent course with better prognosis. They are clinically classified as non-functioning and functioning tumors (**"hormonomas"**). The WHO has classified them into three types as well-differentiated tumors, well-differentiated endocrine carcinomas& poorly-differentiated carcinomas. The mainstay of treatment is complete excision. Pathological features, immunohistochemical studies and genetic analysis play a role in the management of these tumors. Here we present the management of a patient with a well differentiated neuro-endocrine carcinoma of the head of the pancreas.

Case Report:

Our patient a 14 year old boy presented with complaints of pain abdomen with a mass in the upper abdomen of 2 months duration. He did not have any symptoms of endocrine hypersecretion. He was evaluated for these complaints outside, found to have a mass in the head of pancreas and underwent a core needle biopsy and then came to our institute.

Clinically he was well preserved& had an epigastric mass and no signs of distant metastases or obstructive jaundice. Relevant biochemical values included a CA 19.9 of 2 U/ml(<37 U/ml), S.Chromogranin – 49.6 ng/ml(<98.1), S. gastrin 45.7 pg/ml(13-115) and S.calcium – 7.4 mg% & normal blood sugars, coagulation profile &liver function tests. OGD showed an extrinsic bulge in the posterior wall of the stomach& imaging by triple phase CECT showed a well circumscribed heterodense mass in the head of pancreas compressing &narrowing the Superior mesenteric vein (SMV)-portal vein (PV) confluence.



He underwent a Whipple's pancreaticoduodenectomy and was found to have narrowing of the SMV-PV confluence at the end of resection. Hence after gaining proximal& distal control of the splenic vein, PV and SMV, the confluence was refashioned using a saphenous vein patch.

Fig._1._CT_Reconstruction_Image &@