Frantz tumor

Introduction

Frantz tumor was first described in 1959 by Frantz.[1] They account for less than 1% of pancreatic neoplasms. They are classified as borderline neoplasms (tumors of uncertain malignant potential) under WHO classification. They affect mainly young females in their teens and twenties. They are rarely seen in pediatric gastroenterology practice.

Case report

A fifteen year old female came with abdominal pain and recurrent bilious vomiting of two months duration.On examination she had right upper quadrant tenderness with otherwise normal examination findings including per rectal examination. Ultra sonogram (USG) abdomen could not delineate gall bladder separately and showed a 5 × 5 cm mass in the C loop of duodenum. Contrast enhanced computerized tomography (CECT) showed 5 × 5 cm mass within the C loop of duodenum with absence of gall bladder (**Figure 1A**). EUS showed a well circumscribed 5 × 5 cm mass arising from the pancreatic head through antral and duodenal windows. EUS guided FNAC showed papillary structures lined by cuboidal cells with regular nuclei and eosinophilic cytoplasm. The pathologist's impression was a solid pseudo papillary tumor or a neuroendocrine tumor. We did immuno-histochemistry and the cells were found to be vimentin positive and cytokeratin,

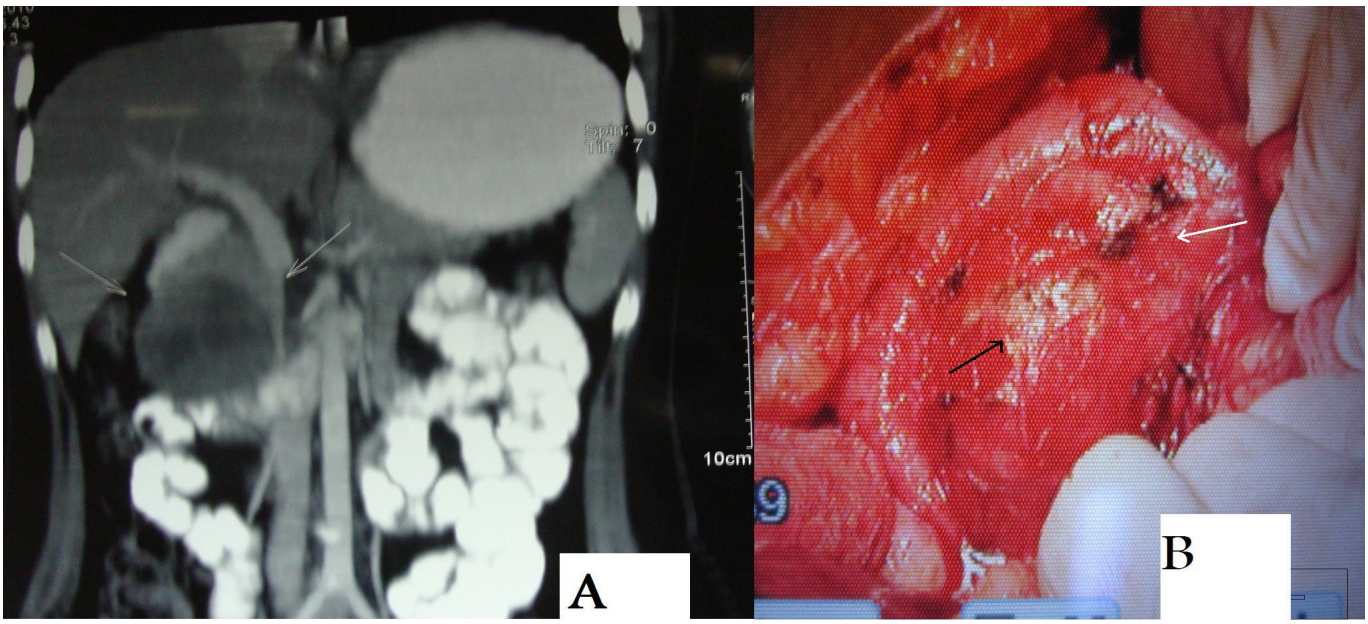

Figure 1: (A) CT scan (white arrows) and (B) intra operative picture (black arrow) showing tumor in C loop of duodenum.

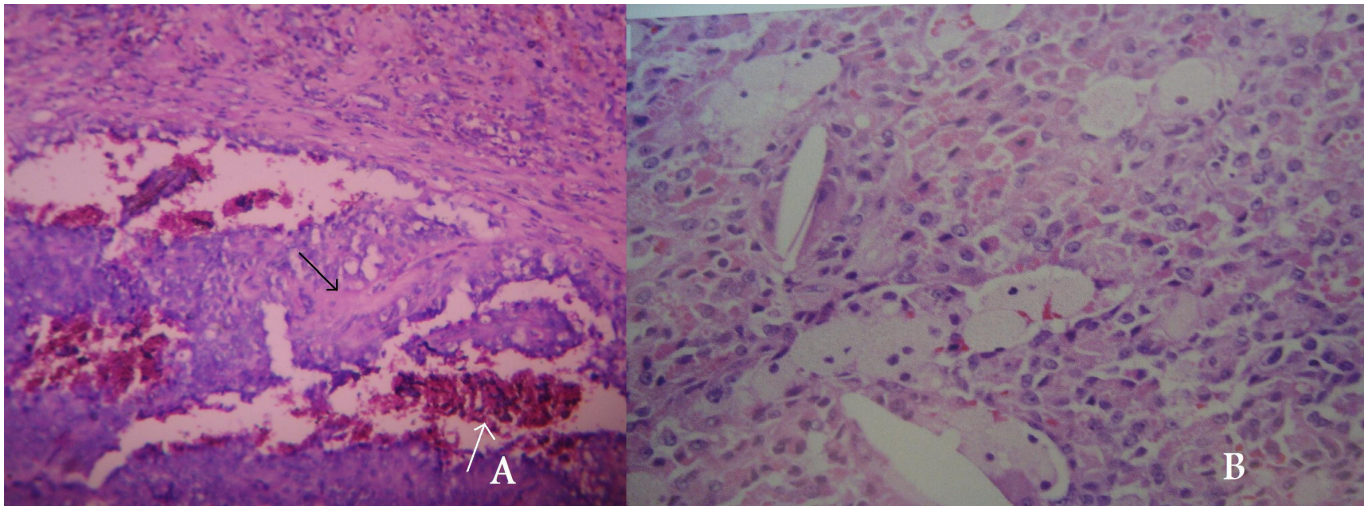

Figure 2: Low (100×) and high (400×) power view of Frantz tumor showing (A) papillary structure (black arrow) and (B) sheet of cells

synaptophysin negative, suggestive of solid pseudopapillary tumor rather than a neuroendocrine tumor.

Laparotomy was done and the gall bladder was found to be absent. A pancreatic mass of size 5 × 5 cm was found in the head of pancreas (**Figure 1B**). The mass was enucleated and sent for histopathology. The report described a well circumscribed non-encapsulated neoplasm with extensive areas of fibrosis, necrosis, hemorrhage and inflammatory cell infiltrate. Few areas showed cystic dilated glandular spaces containing papillary processes lined by cuboidal and columnar epithelium containing oval nuclei with coarse chromatin (**Figure 2A**). Some areas showed solid groups of similar appearing cells (**Figure 2B**). Based on the above findings a diagnosis of solid pseudo papillary tumor was made. The post operative period was uneventful and the patient is doing fine after 3 months of enucleation.

Discussion

Frantz tumor or solid pseudo papillary tumor (solid cystic papillary tumor of pancreas) is a borderline tumor. It accounts for less than 1% of pancreatic tumors. Gall bladder is congenitally absent in 0.013 to 0.075% of general population.[2] So we are uncertain whether the absent gall bladder in our patient is it an incidental finding or is associated with the pseudo papillary tumor. 15% of these patients present with metastasis.[3] The treatment of choice is resection. Some surgeons prefer enucleation for small tumors.[4] Given a 5-year survival greater than 95%, radical surgery is not recommended for this neoplasm.[5] But metastatic disease may require complete surgical excision with metastatectomy.[6]

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References

1. Franz VK. Tumors of the pancreas. Atlas of tumor pathology: fasc 27–28, ser 7. *Armed Forces Institute of Pathology. Washington, DC*: 1959. p.32–3.
2. Singh B, Satyapal KS, Moodley J, Haffejee AA. Congenital absence of the gall bladder. *Surg Radiol Anat*. 1999;**21**:221–4.
3. Washington K. Solid-pseudopapillary tumor of the pancreas: challenges presented by an unusual pancreatic neoplasm. *Ann Surgl Oncol*. 2002;**9**:3–4.
4. Yu PF, Hu ZH, Wang XB, Guo JM, Cheng XD, Zhang YL, et al. Solid pseudopapillary tumor of the pancreas: a review of 553 cases in Chinese literature. *World J Gastroenterol*. 2010;**16**:1209–14.
5. Vollmer CM Jr, Dixon E, Grant DR. Management of a solid pseudopapillary tumor of the pancreas with liver metastases. *HPB (Oxford)*. 2003;**5**:264–7.
6. Martin RC, Klimstra DS, Brennan MF, Conlon KC. Solid-pseudopapillary tumor of the pancreas: a surgical enigma? *Ann Surg Oncol*. 2002;**9**:35–40.

Cholestatic hepatitis in a patient with Graves' disease resolved with total thyroidectomy

Introduction

Hepatic dysfunction has been recognized as a rare complication of hyperthyroidism since Habershon first reported it in 1874.[1] The use of the antithyroid medications propylthiouracil, methimazole, and carbimazole has been associated with toxic hepatitis and cholestatic jaundice.[2] Therefore, avoidance or withdrawal of such drugs in patients with severe thyrotoxicosis could expose critically ill patients to the potentially lethal complications of hyperthyroidism.[3] Clinically evident cholestasis secondary to hyperthyroidism is rare. The mechanism is not clear, but multiple factors are believed to play part in the pathogenesis, including heart failure, infection, and weight loss.[4] Once hyperthyroidism is controlled, cholestasis will improve, as demonstrated in this report. Untreated hyperthyroidism alone can cause liver function test abnormalities, but jaundice is uncommon and usually occurs in cases of hyperthyroidism complicated by congestive heart