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RESEARCH ARTICLE

A CASE REPORT ON PSEUDOPAPILLARY TUMOR OF PANCREAS

***Dr. Navneet Kumar, Dr. Sami Anwar Khan, Dr. Shalu Gupta, Dr. Jeevan Kankaria, Dr. Pradeep Tanwar, Dr. Deepesh Kalra and Dr. Nitin Kumar**

Department of General Surgery, S.M.S. Medical College, Jaipur 302004, India

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ABSTRACT

A young female is presented in OPD with abdominal lump n wage abdominal pain on CT it has solid and cystic component with internal hemorrhage n necrosis. Exploratory laparotomy was planned, on per- op finding large mass globular lobulated varying consistency soft firm and hard somewhere. Young age no lymph nodal disease intra op diagnosis was made of suedopancreatic tumor it was arising from the tail of pancreas so spleen preserving distal pancreatecomy was done an HPE report came as we expected solid cystic tumor. so if we aware of the condition we can diagnose this on imaging preoperatively or intraoperatively cam manage patient with less aggressive resection because of less malignant and good prognosis of this condition.

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INTRODUCTION

Suedopancreatic tumor of pancreas (SPTP) is a rare tumor of pancreas but its incidence is increasing due to awareness of condition and reporting more and more cases. It was first reported by Frantz in 1959. So it is also called Frantz tumor. As it's not being recognized frequently until 1990s, and only less than 300 cases were reported up until 1995. But with the time of internet, its awareness increases , surgeons, radiologists, and pathologists start reporting and publishing more and more case s and series and the widespread availability of new high-quality imaging systems, the number of reported cases has doubled in less than a decade to approximately 600 annually. Pseudopapillary neoplasm makes only approximately 1%–2% of all pancreatic neoplasm (De Castro, 2007). It's very difficult to diagnosed preoperatively before due to lack of awareness but now with increasing awareness and improvement in imaging and technology with widespread of its use nowadays we can recognize it even preoperatively because it has very good prognosis and less aggressive nature we can plan our extent of resection of pancreas accordingly. Nowadays spleen and pylorus are frequently preserved in resection of suedopappilary tumor and according to size and site of tumor we can also preserve duodenum.

**Corresponding author: Dr. Navneet Kumar,*
Department of General Surgery, S.M.S. Medical College, Jaipur 302004, India.

Recurrence rate after radical resection of a SPT is occur in 10%-15%, and the liver is the most common site for it. It has good prognosis, survival rate >95% after resection of tumor (Papavramidis, 2005).

Case report

A 32-year-old woman presented with chief complain of abdominal swelling since 2 month , Pain left upper abdomen for 6-7 days and Vomiting off & on for 6-7 days. Lump in abdomen for 2 month, Gradually increasing in size, 5*8 cm in size, Located predominantly in the left upper abdomen globular in shape mobile with respiration. On palpation lump was non tender firm to hard in consistency. Pain in left upper quadrant of abdomen, Constant dull aching type. Associated with vomiting, Vomiting was Intermittent relived by taking medications Vomiting occurred usually after taking meals Content of vomitus is food and it was of non projectile type. There was no history of previous medical and surgical problems. Routine laboratory tests, Amylase lipase was normal.

USG Abdomen - 8*6*8cm heterogeneous mass having necrotic areas, seen in left hypochondrium likely arising from tail of pancreas. Minimal internal vascularity noted in mass.

CECT abdomen – large well defined soft tissue density lesion of size approximately 9*7*10cm seen in left hypochondrium/pancreatic tail region showing area of necrosis and peripheral wall calcification. Spared adjacent fat plane, producing mass effect on adjacent viscera. D/D likely healed pseudopancreatic cyst.? Nature necrosis in central part and multiple cystic cavities of various size with intervening solid part. Histopathologic examination-cells are arranged in of solid sheets form), micro cysts and Pseudopapillary areas seen which give appearance of characteristic pseudo papillae with the fibro vascular axis of the

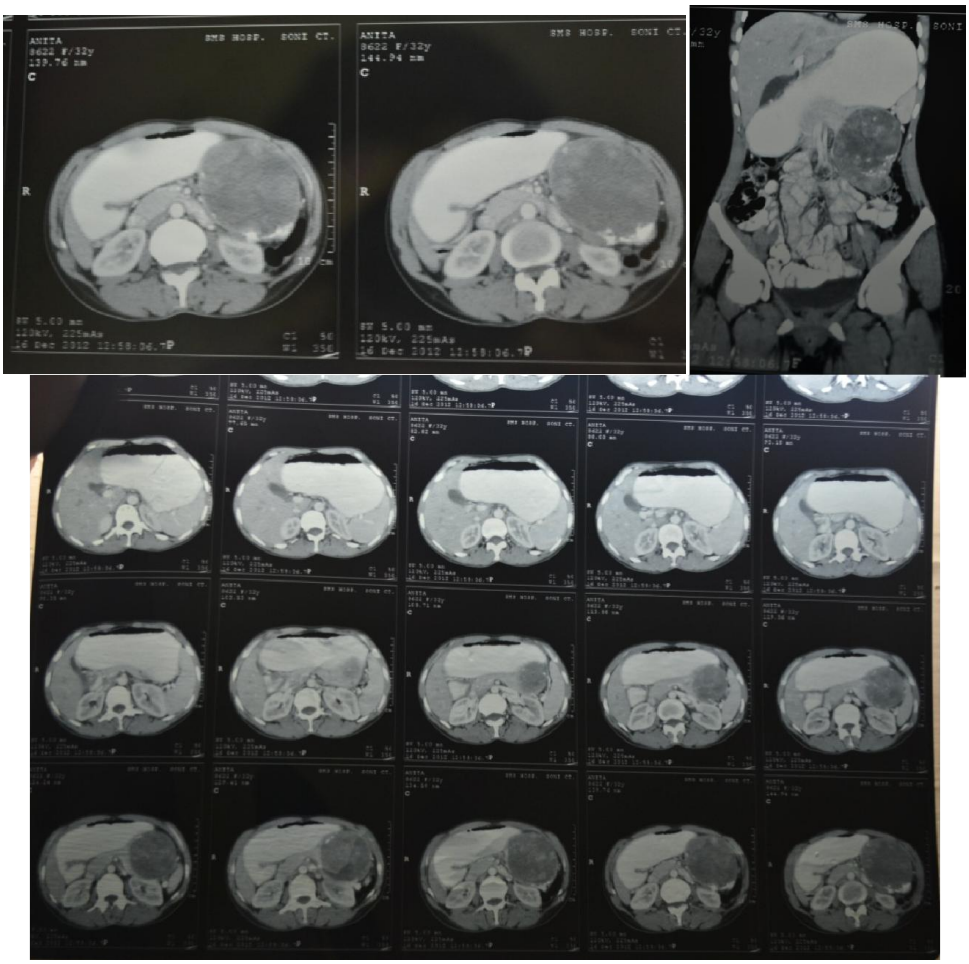


Figure 1, 2 &3. Large mass arising from tail of pancreas shows internal necrosis and peripheral calcification

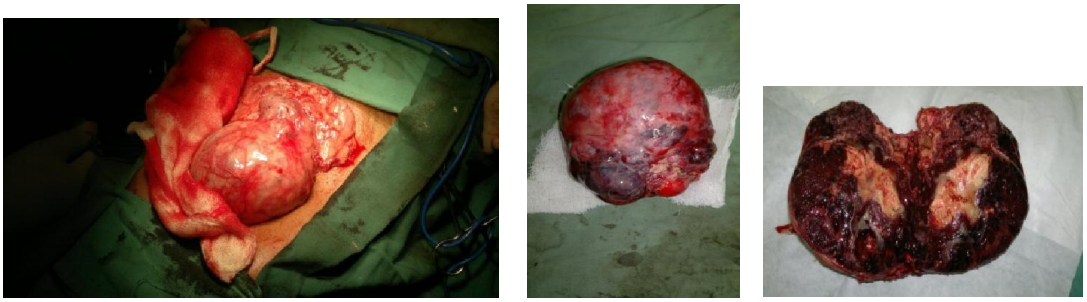


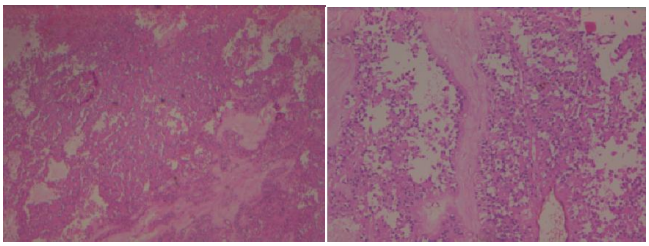
Figure 3,4&5. Large mass arise from tail of pancreas shows mulilobulated, solid n cystic area in cut surface

Exploratory laparotomy revealed a 8*10*10 cms solid cystic mass arising from pancreatic tail and distal 1/3 of body of pancreas. Distal pancreatectomy with preservation of spleen was performed successfully. GROSS EXAMINATION-10*10*8 cm solid cystic mass variable consistency in different part of mass, globular mass with lobulated surface hyper vascular with some area of blackening due to necrosis and filled with black necrotic fluid, Cut surface shows internal branches surrounded by several layers of polygonal epithelioid cells. The cells have moderate amounts of eosinophilic cytoplasm.

DISCUSSION

Solid-Pseudopapillary tumor of the pancreas is a rare condition. This tumor was first described in 1959 (Frantz, 1959). It is known as FRANTZ tumor, named after the author who first

described it, also as solid cystic tumor; papillary epithelial neoplasia; solid and papillary epithelial neoplasia; and papillary epithelial tumor. The origin of solid-Pseudopapillary tumor has not ever been clarified.



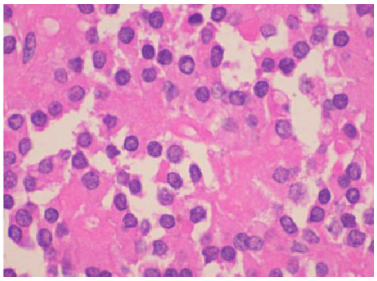


Figure 7, 8&9. Histopathological appearance

It is a dispute that it does originate either from ductal epithelium (De Castro, 2007), Acinar cells (Morohoshi *et al*., 1987), or endocrine cells (Schlosnagle, 1981) Another hypothesis state that this tumor may arises from (1) pluripotent embryonic cells of the pancreas or (2) from the ridge ovarian analogue related cells, which were attached to the pancreatic tissue during early embryogenesis (Mao, 1995), for the international histologic classification of the exocrine pancreatic tumor, WHO renamed this neoplasm solid Pseudopapillary tumor In 1996 (Cantisani *et al*., 2003). solid Pseudopapillary tumor presents in larger mass as compare to other neoplasm of pancreas, these tumor are usually encapsulated mass composed of a mixture of cystic, solid, and hemorrhagic components.

Presence of capsule and intratumoral hemorrhage is characteristic for diagnosis of pseudopapillary tumor because these features are rarely found in other pancreatic neoplasm (Cantisani *et al*., 2003). It is very less malignant neoplasm so mild occasional atypia may found in histopathological examination. D/D of Pseudopapillary tumor are, ductal adenocarcinoma, neuroendocrine tumors and pseudocysts of the pancreas. Because solid Pseudopapillary tumor is slow growing tumor rarely metastasize and has very good prognosis, and surgical excision is curative, differential diagnosis from ductal adenocarcinoma and neuroendocrine tumor is essential (Ng *et al*., 2003; Klöppel *et al*., 2000; Washington, 2002). Due to the characteristic feature on macroscopic and microscopic examination of solid Pseudopapillary tumor it can be easily diagnosed on frozen section. Ductal adenocarcinoma are mostly seen in elderly men. They are much smaller than solid Pseudopapillary tumor. Microscopically, ductal and glandular structures form the tumor. They grow in a infiltrative manner. Neuroendocrine tumors usually present with a solid or microacinar pattern. Hemorrhage and pseudocystic areas are not usually observed. Nuclei are small, round, smoothly contoured and possess fine chromatin structure. solid Pseudopapillary tumor may be confused macroscopically with pseudocystic if insufficient sampling is taken. This disease has a benign course with low malignant potential, mainly young women are affected in their 2ndor 3rd decade of life (female-to-male ratio of 9.78:1) (Tien, 2005 and Cantisani, 2003), there is no difference of sex hormone receptor or clinic pathologic characteristics. for the preoperative diagnosis, Diagnostic modalities including CT and magnetic resonance by these we can only suggest a diagnosis of SPTP. CT findings shows an encapsulated lesion with well-defined borders and variable central areas with necrosis, cystic degeneration, or hemorrhage. Magnetic resonance imaging is shows the characteristic internal signal intensities of blood products, which distinguish this tumor from other cystic pancreatic tumors (Cantisani, 2003). In present era due to advancement in technology we have fine-needle aspiration biopsy under EUS guidance (Wiersema *et al*., 1992 and Vilmann, 1992).

The accuracy of EUS is superior to CT and MRI for detecting pancreatic lesions. EUS alone (94%) is more sensitive than CT scan (69%) and MRI (83%) for detecting lesions, especially when they are smaller than 3.0 cm (Müller, 1994). EUS gives better evaluation of SPTPs, but the findings also are not specific There is controversy for the extent of resection of tumor. In a retrospective Series of 34 patients, Li *et al*. (19) compared between "standard (whipple procedure for tumor of head of pancreas, distal pancreatecomy with spleenectomy for body and tail tumor)" and "minimized (enucleation and segmental resection)" pancreatic resections for SPTs. They noticed similar rates of morbidity and long-term survival in Both the group, but patients underwent for "standard resections" had longer operating times (225 versus 124 minutes; $P = 0.004$), transfusion rates (53% Versus 13%; $P = 0.03$), and hospitalization (21 versus 16 Days; $P = 0.034$). On the basis of these data, they Advocated that "minimized resections, like enucleation should be performed for SPTP. However, they could not follow-up the patient for duration, that was only 29months, This is insufficient to comment on difference in long term survival19, Zhang *et al*. retrospectively Compared open and laparoscopic operations in 28 patients Who underwent distal pancreatecomy for SPTs, they reported that both types had similar operation times, postoperative Morbidity, reoperation rates, LN clearance, mortality Margin status and 3-year survival.

But the laparoscopic Approach had definite short-term advantages, with significantly lower blood loss (149ml versus 580 ml; $P = 0.002$), blood transfusion requirements (7% versus 46%; $P = 0.029$), early resumption of oral intake (2.3 versus 4.9 days, $P < 0.001$), and period of hospitalization (8.1 versus 12.8 days, $P = 0.029$) (Zhang, 2013). There is no guideline or standerd systemic chemotherapy for this. Only small individual case reports are available (Hah, 2007).

Although some says that systemic therapy should be given in whom poor prognosticators or metastatic disease is present, there is no existing definitive data to prove Long-term survival benefit in these patients (Reddy, 2009). There is few individual case reports of gemcitabine used to achieve downsizing for unresectable disease (Kanter, 2009)

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