Fellows' Corner

by Eric Ibegbu

BRIEF CASE REPORT

A 39-year-old black woman presents to the office with three months history increasing abdominal girth without concomitant increase in appetite or change in bowel habits. She denied abdominal pain, nausea or vomiting or lower extremity swelling. There was no history of recent or remote alcohol use. No history of gall bladder disease. She denied weight loss or gain. There was no history of icterus or gastrointestinal bleeding. Past medical and surgical history was significant for spontaneous vaginal delivery of her first child. Family and social history were non-contributory.

Complete blood count, serum electrolytes, creatinine, blood urea nitrogen, serum amylase and lipase were all within normal limits. Abdominal CAT scan revealed an inhomogeneous mass, 10 cm in greatest dimension. The mass was located in the left upper quadrant area in close proximity with the tail of the pancreas displacing the stomach anteriorly (Figure 1).

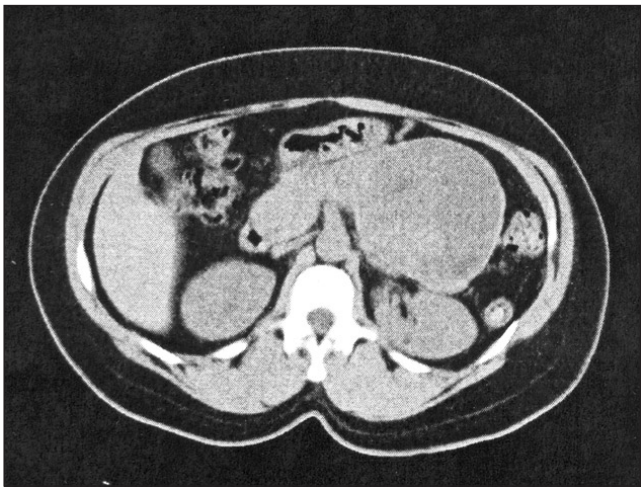

Figure 1.

Based on the findings in the CAT scan, and the uncertainty of the pathological behavior of this mass, she was hospitalized shortly thereafter for surgical exploration and resection of the pancreatic mass.

At laparotomy, a 12.5 cm × 11 cm × 11 cm mass located in the region of the tail of the pancreas without gross evidence of invasion into neighboring anatomical structures, was excised en bloc. The immediate post-op period was uneventful. She was discharged from the hospital on post-op day seven.

Questions

1. What are the differential diagnoses of this case?
2. Is the disease more common in women?
3. What is the proposed pathogenesis?
4. What is the gold standard treatment and prognosis?

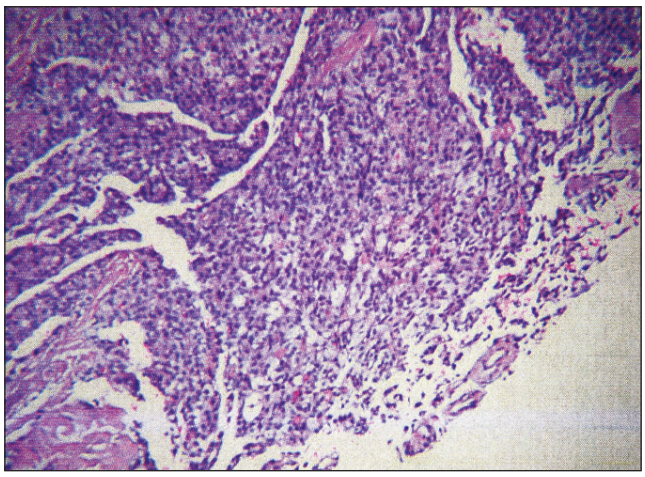

Figure 2.

(Answers and Discussion on page 100)

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DISCUSSION

Histology of the tumor on low power (Figure 1), showed a solid and pseudopapillary pattern consisting of uniform cells with round nuclei. The cells were growing around fine fibrovascular stalks. Small gland-like structures and pseudocystic formations are seen. The histological diagnosis based on the above was Solid-pseudopapillary tumor of the pancreas (SPT) aka Frantz tumor.

Frantz's tumor is a very uncommon low-grade malignant papillary-cystic neoplasm of the pancreas that is relatively frequent in young black women and in adolescent girls average age 30 years and was first described by Frantz in 1959 (1). They also occur in elderly women and men.

Tenderness and abdominal discomfort associated with an enlarging mass sometimes discovered by the patients seem to be the usual complaint (2). They may be found incidentally, either during physical examination for other complaints or at surgery for other disease (3,4). The radiological findings are not specific (5,6). The differential diagnosis includes the following: pancreatic pseudocyst or pancreatic fluid collections, serous cystadenomas, pancreatic abscess, benign pancreatic cysts, retention pancreatic cysts, parasitic cysts, lymphoepithelial cysts (LECs), pancreatic dermoid cysts, pancreatic hematoma and traumatic pancreatitis. In view of the striking female preponderance of Frantz tumor and the known close approximation of the genital ridges to the pancreatic anlage during embryogenesis, it is, however, hypothesized that SPTs might derive from genital ridge/ovarian anlage-related cells, which were attached to the pancreatic tissue during early embryogenesis. It is possible that Frantz's tumor is related to female sex hormones that may play a role in its growth but not in its genesis, clinical, histological, radiological and surgical features. Surgery is regarded as the therapeutic procedure of choice (3,7). These tumors appear locally aggressive; they can recur and metastasize although, rarely. Surgical resection, nearly always cures these patients.

Outcome after surgical resection is excellent with 90% survival in the long term. Tumor recurrence has been described in approximately 10% of patients (1). Our patient has been followed in the outpatient clinic in the last eighteen months and has so far not demonstrated any evidence of tumor recurrence. ■

References

1. Cervantes-Monteil F. Solid-cystic pseudopapillary tumor of the pancreas: acute post-traumatic presentation. Case report and review of the literature. *Rev Gastroenterol Mex,* 2002; 67(2): 93-96.
2. Schwartz DC, Campos MA. A woman with recurrent abdominal pain. *Am J Med Sci,* 2001;321(5):352-354.
3. Ohiwa K, Igarashi M, Nagasue N, et al. Solid and cystic tumor (SCT) of the pancreas in an adult man. *HPB Surg,* 1997;10:315–321.
4. Siech M, Merkle E, Mattfeldt T, et al. Solid pseudopapillary tumor of the pancreas. *Chirurgica,* 1996;67:1012–1015.
5. Buetow PC, Buck JL, Pantongrag-Brown L, Beck KG, Ros PR, Adair CF. Solid and papillary epithelial neoplasm of the pancreas: imaging-pathologic correlation on 56 cases. *Radiology,* 1996; 199:707–711.
6. Yamaguchi K, Hirakata R, Kitamura K. Papillary cystic neoplasm of the pancreas: radiological and pathological characteristics in 11 cases. *Br J Surg,* 1990;77:1000 –1003.
7. Siech M, Merkle E, Mattfeldt T, et al. Solid pseudopapillary tumors of the pancreas. *Chirurgica,* 1996;67:1012–1015.