Solid Pseudopapillary Neoplasm of the Pancreas in a 13 year old girl: A Case Report with Review of Literature

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Abstract

Solid pseudopapillary neoplasm of the pancreas is an uncommon pancreatic tumor accounting for 1-2% of all exocrine pancreatic tumors. The tumor is usually benign with predominant manifestation in adolescent girls and young women (mean age 35 years, range 8-67 years). The etiology is unknown but the striking sex and age distribution points to genetic and hormonal factors. They are usually found incidentally on routine physical examination or after evaluation in patients with abdominal discomfort and pain. The prognosis is good. After complete removal more than 95% of the patients are cured.

We present the case of a 13 year old girl with no systemic illnesses who developed abdominal distention and discomfort. An abdominal computed tomography (CT scan) showed a 10.4 x 10.3 cm heterogeneous mass in the pancreatic head that extended to the liver and stomach. A biopsy of the mass disclosed a solid-pseudopapillary neoplasm of the pancreas, confirmed by immunohistochemistry at our institution. We present this case because of the rarity of these neoplasms, and review the literature.

Case Report

A 13 year old Hispanic girl without history of systemic illnesses presented with abdominal distention of 1 month of evolution. Physical examination revealed a palpable, non-tender, non-mobile mass in the mid abdomen. An abdominal computerized tomography (CT scan) performed at another institution showed a mass arising from the head of the pancreas, reaching the stomach and liver. An open biopsy was done and a diagnosis of pancreatic adenocarcinoma was rendered. Patient was then transferred to our institution for further management. Biopsy was reviewed by our service and immunohistochemistry favored a diagnosis of solid pseudopapillary neoplasm of the pancreas. Patient underwent surgical excision of the tumor.

The tumor mass measured 9 x 8 x 5 cm and weighed 190 g. Externally, it was irregular with a portion of omentum attached that measured 7 x 4 cm. On section, the mass had a variegated appearance with tan solid areas, focal necrosis and cystic degeneration. On microscopy, tumor consisted of small monotonous cells with predominant manifestation in adolescent girls and young women (mean age 35 years, range 8-67 years). The etiology is unknown but the striking sex and age distribution points to genetic and hormonal factors. They are usually found incidentally on routine physical examination or after evaluation in patients with abdominal discomfort and pain. The prognosis is good. After complete removal more than 95% of the patients are cured.

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References