
Clinicopathologic Features and Therapeutic Strategy of Solid Pseudopapillary Tumor (SPT) of the Pancreas

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Purpose: Solid pseudopapillary tumor (SPT) of the pancreas is rare neoplasm and usually represents a benign character. Reports of SPT have increased in frequency by better recognition and widespread availability of high quality imaging systems. Malignant SPT is generally considered low grade tumor with a good prognosis and rarely has lymph node metastases. In this study, we describe the clinicopathologic features of SPT. So this study aimed to delineate the predicting factors suggesting malignant potential and ideal treatment of the SPT from a large scale of patients in a single institution.

Methods: From August 1995 to December 2009, 92 patients with SPT who underwent operations in Samsung Medical Center were reviewed retrospectively. The patients' clinicopathologic characteristics, operative outcomes, and follow-up datas were analyzed based on medical records.

Results: SPTs were more common in females (81,5%) and the mean age of the patients was 39.4 years. SPTs usually located in the pancreas body and tail (69,6%). The median diameter of these lesions was 5,51 cm and 47cases (51,1%) had calcification. Main symptoms were abdominal pain and discomfort (54,2%). All of the patients except 1 underwent curative resection and there were no surgical mortalities. 33 (35,9%) patients underwent lymph node dissection but there was no lymph node metastasis. The patients were diagnosed 52 (56,5%) benign, 25 (27,2%) borderline malignant, and 15 (16,3%) malignant SPTs after operations. Median follow-up period was 57.1 months and 5YSR was 98%. Among the malignant SPT group, 2 patients had recurrence in the follow up period. At the time of first operation, 1 patient had capsule invasion and developed liver and intraperitoneal lymph node metastases within 15.7 months, finally died of disease at 71 months respectively, following the operation. The other showed mitotic activity and developed also intraperitoneal lymph node metastases within 34.8 months. The lesions of recurrence were all large, 10 cm or more. Malignant potentials generally associated with cellular atypia, mitotic activity, capsule invasion, peripancreatic tissue and lymphovascular invasion. Invasion of the peripancreatic tissue (73,2%) was the most frequently encountered pathologic finding. There were statistically

significant differences in tumor size greater than 4.85 cm ($p < .001$), and for the lesions with calcification ($p = .034$) and for the solid lesions ($p < .001$) between the malignant SPT (including the borderline malignant SPT) and the benign SPT. However no statistically significant survival difference was noted between groups of malignant potential and benign pathology.

Conclusions: Malignant SPT is low grade tumor with good prognosis. Complete resection of the tumor preserving as much pancreatic tissue is the ideal treatment, but close follow-up is necessary, particularly in the lesions with malignant potentials, though the lesion undergone potentially curative resection.