Solid-pseudopapillary neoplasm of the pancreas or pancreatic endocrine tumor?

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A research team from China investigated differential points of solid-pseudopapillary neoplasm (SPN) of the pancreas and pancreatic endocrine tumor. They found that characteristic morphological features and specific expressive patterns of beta-catenin and E-cadherin make it to be easy to differentiate SPN from other pancreatic tumors.

Solid-pseudopapillary neoplasm (SPN) of the pancreas is relatively rare. There are some similarities between SPN and pancreatic endocrine tumor (PET), especially the non-functioning ones, in clinical and pathological manifestations. Even the results of immunohistochemistry reported in the literature showed that the expression profiles of the two tumors overlapped, which sometimes results in difficulty distinguishing the two entities. In recent years, studies have shown that the vast majority of SPN harbor a point mutation on exon 3 of β-catenin gene, which has not yet been discovered in other pancreas tumors.

A research article published on February 28, 2010 in the *World Journal of Gastroenterology* addresses this question. A total of 24 cases pathologically diagnosed as SPN or PET, including 10 SPN and 14 PET, were reviewed.

Their results showed SPN of the pancreas, compared with PET, is a cystic-solid or cystic tumor with a larger size mostly seen in young women, and has the morphological features of hemorrhage and necrosis on the cut surface and exclusive pseudopapillary structures on light microscopy caused by cellular dyscohesive degeneration. If necessary,

immunostaining of b-catenin and E-cadherin is quite helpful to make the differential diagnosis.

More information: Liu BA, Li ZM, Su ZS, She XL. Pathological differential diagnosis of solid-pseudopapillary neoplasm and endocrine tumors of the pancreas. World J Gastroenterol 2010; 16(8): 1025-1030. www.wjgnet.com/1007-9327/16/1025.asp

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