

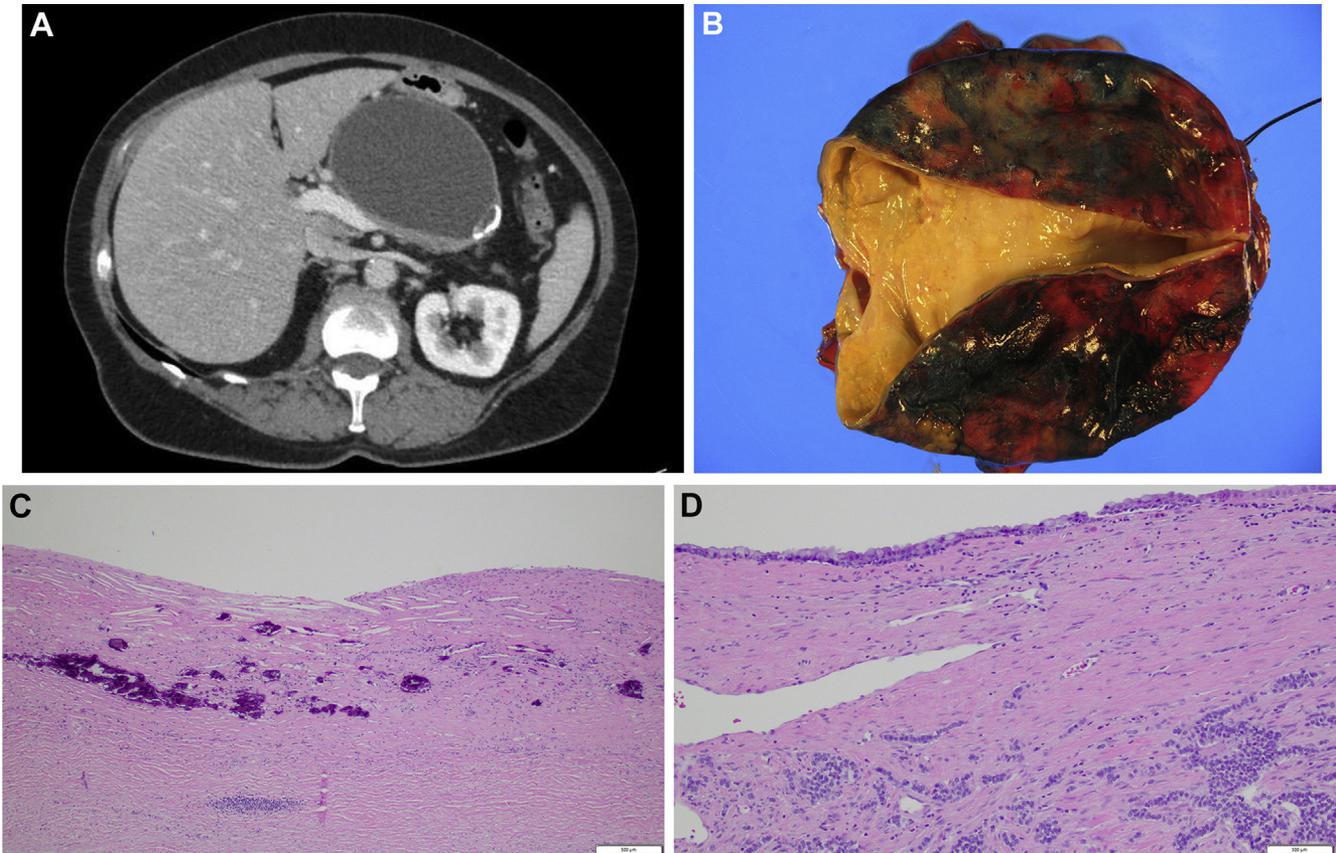
IMAGE OF THE MONTH

An Incidental Pancreatic Simple Mucinous Cyst Reveals an Incidental Well-Differentiated Neuroendocrine Tumor



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A 61-year-old woman with tobacco abuse presented after screening computed tomography scans demonstrated an incidental large pancreatic body cyst with mural calcifications (Figure A). FNA showed macrophages and debris with an elevated CEA level. A mucinous cystic neoplasm was therefore presumed. A distal pancreatectomy and splenectomy specimen showed an 11.2 × 8.0 × 7.8-cm unilocular cyst with yellow viscous fluid, a tan yellow lining, and a 0.3- to 0.7-cm-thick rubbery wall (Figure B). Histologically, the cyst lining was mostly denuded with residual benign simple cuboidal gastric-type epithelium and underlying dense hyalinization and calcification without ovarian-type stroma (Figures C, D). An incidental well-differentiated (WHO grade 1) neuroendocrine tumor (NET) infiltrated the cyst wall diffusely (Figure D).

Pancreatic simple mucinous cysts (SMCs) measure greater than 1.0 cm and occur mostly in asymptomatic

postmenopausal women. They lack features of intraductal papillary mucinous neoplasms and mucinous cystic neoplasms. SMCs exhibit a rather benign behavior, but their neoplastic potential has been suspected with KRAS mutations demonstrated in 13%–55% of cases. As a result, the original designation of simple nonneoplastic cyst was changed to SMC.

NETs may rarely present as cystic lesions resulting from central necrosis of solid tumors. They show a cavity surrounded by neoplastic neuroendocrine cells unlike the SMCs' thick hyalinized wall and gastric-type epithelial

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monolayer lining seen in the current lesion. Whether the NET is arising from the cyst is uncertain. This concurrence of SMC and NET has not been previously reported.

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The corresponding author, on behalf of all authors, jointly and severally, certifies that their institution has approved the protocol for any investigation involving humans or animals and that all experimentation was conducted in conformity with ethical and humane principles of research.