PANCREAS

Limiting EUS misinterpretation of mucus as mural nodules in pancreatic cysts

Specific features on endoscopic ultrasonography (EUS)—echogenicity, edge and rim—can be used to discriminate mucus from mural nodules in pancreatic cysts and could therefore be used to improve diagnosis of these predictors of malignancy, according to new research. “Our results imply that endosonographers can often distinguish mucus from epithelial mural nodules in pancreatic cysts by EUS images alone,” says author Mark Topazian.

The presence of mural nodules in pancreatic cysts can be indicative of malignancy and is considered a criterion for cyst resection. However, identification of mural nodules is challenging because mucus present in a pancreatic cyst can resemble the nodules on imaging.

Topazian *et al.* retrospectively analyzed data from 41 patients with intraductal mucinous neoplasms or mucinous cystic neoplasms who had undergone

preoperative EUS and pancreatic cyst resection. They found that 65% of the intracystic echogenic lesions initially identified as mural nodules were actually mucus. Moreover, changing body position and performing fine-needle aspiration improved the diagnostic accuracy of EUS. Finally, the researchers identified and validated specific echosonographic features that helped to discriminate mural

Mucus in a pancreatic cyst with typical features on endoscopic ultrasonography. Courtesy of M. D. Topazian.

nodules from mucus—mucus is usually hypoechoic compared with adjacent soft tissue, smooth-edged and with a hyperechoic rim—which greatly improved the interpretation of EUS images (diagnostic accuracy increased to 90% when all three features were present).

These findings could be decisive in limiting the number of pancreatic cyst resections performed for mucus structures improperly defined as mural nodules. “We hope that these findings will lead to more accurate diagnosis of mural nodules, helping to further refine clinical application of consensus criteria for resection of these cysts,” notes Topazian.

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Original article Zhong, N. *et al.* Histologic and imaging features of mural nodules in mucinous pancreatic cysts. *Clin. Gastroenterol. Hepatol.* doi:10.1016/j.cgh.2011.09.029