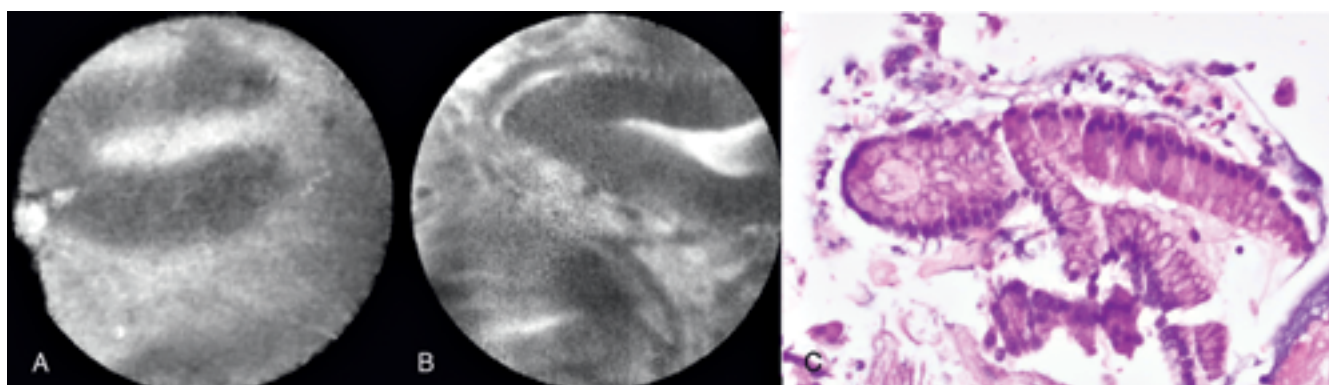


# Identifying a Mucinous Neoplasm Utilizing Confocal Laser Endomicroscopy: Branch-Duct Gastric Type Intraductal Papillary Mucinous Neoplasm

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A 67-year-old woman with a history of diabetes mellitus presented with right-sided abdominal pain and underwent an abdominal computed tomography scan that revealed a cyst in the head of the pancreas with common bile duct dilation. Magnetic resonance imaging and EUS further defined a 2.7x2.4 cm pancreatic cystic lesion (PCL) with an irregular margin in the pancreatic head with possible compression of the common bile duct, which was dilated to 8 mm. EUS-guided needle-based confocal laser endomicroscopy (nCLE) revealed finger-like projections or papillae with inner vascular core, suggestive of intraductal papillary mucinous neoplasm (IPMN) (A). A Whipple pancreaticoduodenectomy was subsequently performed. After surgical resection, ex vivo pCLE was done which re-demonstrated the characteristic finger-like papillae (B). Histopathology demonstrated a 3.2 cm non-invasive branch-duct gastric type IPMN with high-grade dysplasia (C). There was strong correlation between *in vivo* and *ex vivo* CLE findings with site-specific biopsies (A-C).

Pancreatic cancer is a leading cause of cancer-related morbidity and mortality. Pancreatic cystic lesions provide an opportunity for early diagnosis. However, differentiation of these lesions using the standard approach of imaging and laboratory studies is challenging. Additionally, differentiating non-mucinous cysts from mucinous cysts including IPMNs and mucinous cystic neoplasms is critical for further management. Here, we highlight the use of *in vivo* and *ex vivo* CLE in the workup of a branch-duct gastric type IPMN. Confocal laser endomicroscopy is a novel technology that can supplement

EUS in the workup and evaluation of PCLs [1]. This relatively new technology can help delineate mucinous cysts from non-mucinous cysts and guide management strategies [2]. This study illustrates the characteristic CLE pattern of branch-duct gastric type IPMN lesions, which consists of well-defined finger-like papillae or projections. Additional studies are necessary to replicate these findings prior to establishing them as reference standards.

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