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Abstract titel: “*Coexistence of Serous cystic neoplasm (SCN) and Pancreatic intraepithelial neoplasia (PanIN) in pancreatic surgical specimens: a prevalence and topographic retrospective study*”

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Background

Pancreatic ductal adenocarcinoma (PDAC) develops from microscopic high-grade intraepithelial neoplasias (HG-PanINs) or precancerous mucinous cysts (MCN/IPMN), whilst serous cystic neoplasias (SCN) are considered benign.

PanINs are microscopic mucinous changes in ductal epithelium, ranging from benign low-grade (LG) lesions to precursor high-grade (HG) dysplasia.

Preoperative discrimination between precancerous and benign lesions by endoscopic ultrasound guided fine-needle aspiration for cytology or through-the-needle-biopsies (TTBNs) is critical for correctly allocating patients to surgery versus follow-up but is often limited by scant/poor-quality cytohistological material and/or potential tissue contamination.

The need for exploring the adjacent environment of SCNs are essential for determining the magnitude of cases where a possible nearby lesion can impose diagnostic difficulties.

Aim

To examine the prevalence and topographic location of concomitant PanIN/MCN/IPMNs, in relation to SCN.

Material and Methods

Retrospective study of 16 patients, previously diagnosed with SCN in pancreatectomy specimen, between 1999-2018 at the Pathology department, Rigshospitalet. Routine HE-stained glass slides were reevaluated by three blinded GI-pathologists. Demographic and clinical data were collected from Sundhedsportalen.

Results and Discussion

The prevalence of PanIN/IPMN/MCNs were 14/16 (88%), 0/16, 0/16, where 3/14 (21%) specimens contained HG-PanIN. The mean topographic distance between SCN and PanIN was 1.84 mm, ranging from 0.001 to 8.40 mm where 10/13 (77%) were located within 1.65 mm. The high prevalence of LG-PanINs and close topographic proximity, raises the possibility of unintended sampling and misdiagnosing as premalignant lesions. Further immunohistochemical and molecular characterization should be attempted in order to prevent unnecessary pancreatectomy, related to significant post-operative morbidity and mortality.