**Clinical Significance Of Surveillance-Detected Ductal Abnormalities In Individuals At High Risk For Pancreatic Cancer**

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**Background:** Surveillance of high risk individuals (HRI) for pancreatic adenocarcinoma (PDAC) leads to frequent detection of pancreatic cysts. A dilated main pancreatic duct (MPD) raises concern for intraductal neoplasm or occult invasive neoplasm. Clinical significance of duct dilation in HRI is uncertain.

**Aims:** 1) To determine natural history of MPD abnormalities in HRI, 2) To correlate imaging with pathology.

**Methods:** 354 HRI enrolled in Cancer of the Pancreas Screening (CAPS) prospective cohort studies from 1998 to 2014 were included. Endoscopic ultrasound, MRI, computed tomography, and/or ERCP were compared with pathology and follow-up. A dilated MPD was defined as diameter > 3, > 2, or > 1 mm in the head, body and tail, respectively. Primary endpoint was the prevalence of main duct HGD or PDAC in HRI with dilated MPD. Secondary endpoint was the outcome of MPD dilation at last follow-up.

**Results:** 354 HRI (47% male, mean age 56, 84% PDAC relatives, 16% mutation carriers) were under surveillance (median 5.6 years). 109 (31%) had diffuse or focal MPD dilation at baseline (76) or during follow-up (33). In the former group, 27 (36%) had stable dilated duct size throughout the follow-up, while remainder had intermittent or normal MPD. Twenty-seven (24%) HRI with MPD dilation had surgery; 7 with MPD > 5 mm developed PDAC (2) or lower grade neoplasms (5). Twenty HRI with dilated MPD <5mm developed PDAC (5) or other neoplasm, 3 of which had 2 combined IPMN (2) and PanIN3 (1). These 3 patients had mean duct diameter of 3.6mm with cyst worrisome features (mural nodule(s) in the duct or adjacent cyst, MPD irregularity, thickened cyst septae) or MPD stricture with minimal upstream dilation and no mass.

**Conclusions:** MPD dilation may be associated with high-grade neoplasia, combined IPMN, or PDAC, even when duct dilation is mild < 5 mm.