Intraductal Papillary Mucinous Neoplasms of the Pancreas with Concurrent Pancreatic and Periampullary Neoplasms

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Context Intraductal papillary mucinous neoplasms (IPMN) have been reported to be associated with concurrent pancreatic ductal adenocarcinoma (PDAC) in about 8% of resected branch duct lesions. In addition other pancreatic and periampullary tumors are occasionally diagnosed with IPMN.

Objective To describe the incidence, clinico-pathological characteristics and prognosis of concurrent pancreatic/periapillary neoplasms from two tertiary referral centers.

Methods All pancreatic resections performed at the Massachusetts General Hospital, USA, and the Negrar Hospital, Italy, were analyzed to identify patients with IPMN and concurrent pancreatic/periapillary neoplasms.

Results Two-thousands and 762 patients underwent pancreatic surgery from January 2000 to December 2012. Sixteen percent (n=441) had pathologically confirmed IPMN and 11% of them (n=50) had synchronous other pancreatic neoplasm. Sixty-two percent of them were PDAC, followed by neuroendocrine neoplasms (10%), ampullary carcinoma (10%), mucinous and serous cystic neoplasms. In 82%, both lesions were found in the same pancreatic region, mainly in the pancreatic head. Among all patients with synchronous neoplasms, 66% harbored branch duct IPMN, 28% combined IPMN and 6% main duct IPMN, 11% IPMN with high-grade dysplasia, and 4% invasive carcinoma. The median age of patients with concurrent pancreatic neoplasms was 71 years. Abdominal pain and/or jaundice were the leading symptoms in half of patients. Thirty-four percent of patients had a positive history for other extra-pancreatic neoplasms. The median survival time was 15 months (95% CI: 11-19 months) in patients with concurrent PDAC vs. 23 months (95% CI: 0-46 months) in patients with other synchronous malignant neoplasms.

Conclusion IPMN, mainly BD-IPMN, are associated with PDAC in about 7% of patients and account for 62% of all concurrent pancreatic/periapillary neoplasms. Other synchronous neoplasms may be found sporadically with IPMN.