

## **Predictors of Malignancy in Pancreatic Intraductal Papillary Mucinous Neoplasms and Applicability of Current Guidelines**

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### **Abstract**

**Introduction:** Pancreatic intraductal papillary mucinous neoplasms (IPMN) are recognized as pre-malignant lesions, corresponding to less than 3% of all pancreatic exocrine neoplasms. The study objectives were: to evaluate the surgical results of our institution, to identify factors predicting malignancy in IPMN and to assess the validity of recently introduced IPMN guidelines in our population.

**Methods:** A single center, retrospective study in patients submitted to surgical resection for IPMN was conducted, between 1/2008-6/2016, to identify predictive factors for malignancy, and to evaluate the surgical results.

**Results:** Thirty-nine patients were submitted to a surgical resection. The median age was 68 years (61.5% females). Adenocarcinoma and high-grade dysplasia were present, in 7 and 4 patients, respectively. A significant association was identified with the phenotype and the degree of atypia ( $p = 0.001$ ), and duct origin and degree of atypia ( $p = 0.026$ ). Malignant transformation was associated with intestinal or pancreatic-biliary subtypes.

**Discussion and Conclusions:** Applying the European guidelines, all adenocarcinoma would have undergone surgical resection, but 1 with high-grade dysplasia would not be resected. If we applied the American guidelines, 1 patient with adenocarcinoma and 3 with high-grade dysplasia wouldn't be submitted to resection. The decision in patients with these lesions requires multidisciplinary teams and a tailored based approach.

**Key words:** carcinoma, pancreas, pancreatic cancer, pancreatic cyst, pancreatic ductal, pancreatic surgery