

## Are the New IPMN's Guideline Effective to Predict the Presence of Invasive IPM Carcinoma? A Single Center Experience

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**Context** In 2012 the International Consensus Guidelines for the management of IPMNs changed the criteria for surgery and the definition of "malignancy", reserving this term only for invasive carcinoma. **Objectives** To evaluate the accuracy of surgical criteria to predict malignancy. **Methods** From 2003 to 2012, data regarding 184 patients with IPMNs, were recorded in a prospective database. Forty-two (22.8%) patients, undergoing surgery, were evaluated according to the new guidelines. Criteria for surgery (cyst size, Wirsung dilatation, symptoms and presence of solid endocystic component) were studied to assess the malignancy in patients affected by IPMNs. Multivariate analysis was carried out comparing the new (only invasive carcinoma) and old definition of malignancy (invasive carcinoma and high grade dysplasia). **Results** All operated patients presented criteria for surgery: 9 (21.4%) had pancreatitis, 12 (28.6%) showed enhancing solid component (ESC), 28 (66.7%) had main pancreatic duct (MPD) dilated and in 18 (42.9%)

cases cystic size was  $\geq 30$  mm. Malignancy was recorded in 21 (50.0%) and 17 (40.5%) patients, according to the Sendai and Fukuoka definitions. At multivariate analysis no factors predicted malignancy according to Fukuoka definition, while presence of ESC (RR 14.2; 95% CI 1.8-113.5; P=0.012) and cystic size (RR 1.1; 95%CI 1.02-1.20; P=0.019) were related to malignancy according to Sendai definition. A dimensional cut-off of the cystic lesion of 26 mm was obtained with a ROC curve (AUC=0.724; P=0.013). At the multivariate analysis, this cut-off resulted the strongest independent factor predicting malignancy according to Sendai definition (RR 8.0; 95%CI 1.13-56.95; P=0.037). **Conclusion** In our experience, surgical criteria seem to be inefficacy to predict presence of invasive carcinoma. ESC and cystic size were the only factors able to detect patients with high grade dysplasia or invasive carcinoma and to suggest the surgical approach.