

Accuracy of malignancy criteria for an intraductal papillary mucinous neoplasm. Should we have blind faith in consensus guidelines?

Key words: Intraductal papillary mucinous neoplasm. Pancreatic cystic neoplasm. Criteria of malignancy.

Dear Editor,

Based on a recent review with regard to recommendations for an intraductal papillary mucinous neoplasm (IPMN) (1), we want to highlight the fact that different studies have limitations when identifying potentially life threatening branch-duct IPMN. Both the Fukuoka criteria published in 2017 (2) and the American Gastroenterological Association guidelines in 2015 (3) have a high specificity and positive predictive values (1,4) (Table 1). However, the lack of criteria for malignancy does not completely reduce the risk of high grade dysplasia (HGD) or invasive carcinoma (IC). The 5-year IC risk for IPMN without malignancy criteria is 2-3% (1).

The cyst size value for malignancy remains controversial. In the study reported by Sahora et al. (5), HGD was present in 6.5% of patients without malignancy criteria and a cyst size < 3 cm. Moreover, only a cyst size > 3 cm increased the possibility of IC up to 18%. Consequently, cyst size must be treated with caution and a close follow-up should be implemented. A rapid rate of cyst growth > 5 mm/2 years is included as a worrisome feature in the last review of Fukuoka guidelines (2).

Endoscopic ultrasonography with fine needle aspiration is currently a fundamental diagnostic method for the management of IPMN. Both an elevated serum level of carbohydrate antigen 19-9 and high grade epithelial atypia are included in the 2017 Fukuoka guidelines (2).

Therefore, we want to highlight that although the different guidelines published for the diagnosis and management of this neoplasm are a starting point for the evaluation of our patients, we need to be careful when applying the different algorithms proposed in the international consensus guidelines.

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Table 1. The accuracy of malignancy criteria for IPMN according to retrospective studies and their major limitations

Sendai criteria 2006	Fukuoka guidelines 2012	AGA guidelines 2015
Sensitivity = 91.7% Specificity = 21.5% PPV = 21%, NPV = 91.9% (4)	Sensitivity = 55.6% Specificity = 73% PPV = 32%, NPV = 87.9% (4)	Sensitivity = 62% Specificity = 79% PPV = 57%, NPV = 82% (1)
High sensitivity, a low PPV, and an increased risk of unnecessary pancreatic resections	Higher specificity and a lower sensitivity, with a risk of being too conservative and thus tumors with malignant foci could go unnoticed	

AGA: American Gastroenterological Association; PPV: positive predictive value; NPV: negative predictive value.

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