

## It Is Time To Acknowledge The Prognostic Significance Of Radiologic Splenic Vessel Involvement In Pancreatic Body And Tail Cancer: Retrospective Multicenter Study

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**Background :** Multiple consensus criteria have evolved to help identify operative candidates with resectable disease in the pancreatic head based on the level of mesenteric artery and vein involvement on cross sectional imaging. However, the prognostic impact of preoperative radiologic splenic vessel invasion in pancreatic body/tail adenocarcinoma is controversial. The aim of this study was to assess the clinical value of radiological splenic vessel invasion in patient with pancreatic adenocarcinoma of the body and tail.

**Methods :** We reviewed the medical records of patients who underwent distal pancreatectomy performed for pancreatic adenocarcinoma between 2010 and 2021 from 3 tertiary centers. Preoperative imaging including CT and MRI was rereviewed and splenic vessel involvement was graded as none, abutment, narrowing and occlusion. Only narrowing and occlusion were defined as "radiologic invasion". Clinicopathological variables and perioperative and survival outcomes were evaluated.

**Results :** Among 160 patients, radiologic findings of definite splenic vessel invasion were present in 82 (51.2%) patients. There were no significant differences in tumor size, grade or lymphovascular invasion. However, radiologic findings of splenic vein invasion or splenic artery invasion were both significantly associated with lymph node positivity and perineural invasion. Splenic artery invasion was significantly associated with a reduced median disease free (6 months,  $p=0.000$ ) and overall survival (35 months,  $p=0.006$ ). Multivariate analysis also showed that splenic artery invasion was an independent risk factor of worse disease free (hazard ratio, 2.294; 95% confidence interval, 1.1664.513;  $p=0.016$ ) and overall survival (hazard ratio, 2.383; 95% confidence interval, 1.1794.819;  $p=0.016$ ).

**Conclusions :** Due to the poorer prognosis, patients with pancreatic body/tail adenocarcinoma presenting with radiologic evidence of the splenic artery invasion should be considered for neoadjuvant therapy before resection.

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