AB053. P024. Ki-67 proliferative index in resectable pancreatic ductal adenocarcinoma: does it have a prognostic role?

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Background: Pancreatic ductal adenocarcinoma (PDAC) is a tumor with a complex biological behavior and a dismal prognosis. New targets to stage the disease correctly and manage treatment are needed. Ki-67 expression in tumor tissues is a well-known parameter representing the aggressiveness of neoplasms, but it is not used for PDAC. The aim of this study is to analyze the role of Ki-67 as a prognostic factor in a series of resected PDAC.

Methods: A total of 176 patients who underwent upfront pancreatic resection for histologically confirmed PDAC with Ki-67 immunohistochemical staining between August 2010 and October 2014 were included in this study. Disease specific survival (DSS) and disease-free survival (DFS) were calculated starting from the date of surgery.

Results: Median Ki-67 index was 30% (IQR, 10–40%). Ki-67 cut-off of 10% and 50% were the only values significantly discriminating for both DFS and DSS. The median DFS time was 24 *vs.* 19 *vs.* 8 months for patients with Ki-67 index ≤10%, 10–50% and >50% respectively (P=0.018). Furthermore, even DSS decreased significantly through the three categories (47 *vs.* 35 *vs.* 14 months, P=0.003). Ki-67 index [hazard ratio (HR), 1.570; P=0.013], grading (HR, 1.458; P=0.032), N status (HR, 2.137; P=0.003) and resection margins (HR, 1.778; P=0.004) were identified as independent predictors for DSS. Except for grade of tumor differentiation, these same factors were independently associated with DFS.

Conclusions: Ki-67 was an independent predictor of DSS and DFS in resected PDACs. Therefore, Ki-67 may play a valuable role as prognostic factor, to better characterize tumor behavior and treatment strategies.