

## AB097. P071. Implications of the pattern of disease recurrence on survival following pancreatectomy for pancreatic ductal adenocarcinoma

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**Background:** After radical resection of pancreatic ductal adenocarcinoma (PDAC), approximately 80% of patients will develop disease recurrence. It remains unclear to what extent the location of recurrence carries prognostic significance. Additionally, stratifying the pattern of recurrence may lead to deeper understanding of the heterogeneous biological behavior of PDAC. The aim of this study was to characterize the association of recurrence patterns with survival in patients with resected PDAC.

**Methods:** This single-center cohort study included patients undergoing pancreatectomy between 2000–2013. Exclusion criteria were neoadjuvant therapy and <24 months follow-up. Sites of first recurrence were stratified into five groups and survival outcomes were estimated using Kaplan-Meier

curves. The predictive values of specific recurrence locations on overall survival were analyzed using a Cox proportional-hazard regression model.

**Results:** Accurate follow-up data were available for 850 patients, 662 (77.9%) of whom had documented recurrence at last follow-up. The most common manifestation was “multiple-site” recurrence (n=227, 34.3%), followed by liver only (n=166, 25.1%), local only (n=158, 23.9%) and lung only (n=93, 14.0%) recurrence. “Other” recurrence sites (n=18, 2.7%) included osseous structures such as the spine and iliac crest, the brain, supraclavicular lymph nodes, the groin, thigh muscle and the skin. Patients with multiple-site (4.7 months) or liver only recurrence (7.2 months) had significantly worse median survival after recurrence when compared to lung or local only recurrence (15.4 and 9.7 months respectively). On multivariable analysis, the unique recurrence patterns had variable predictive values for overall survival, while both adjuvant chemotherapy and chemoradiotherapy were associated with prolonged overall survival.

**Conclusions:** This study demonstrates that specific patterns of PDAC recurrence result in different survival outcomes. Furthermore, distinct first recurrence locations have unique independent predictive values for overall survival, which could help with prognosis stratification and decisions regarding the treatment after diagnosis of recurrence.

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