AB007. S007. Survival in locally advanced pancreatic cancer: impact of surgical resection after neoadjuvant therapy

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Background: Current guidelines recommend systemic chemotherapy for locally advanced pancreatic cancer (LAPC). An increasing number of patients who respond favorably to neoadjuvant therapy undergo surgical resection of the primary tumor. The impact of surgery on patient survival is largely unknown.

Methods: This is a single institution retrospective cohort study that included all LAPC patients who presented to the institutional Pancreatic Multidisciplinary Clinic (PMDC) of a high-volume pancreatic cancer center from January 1st, 2013 to September 30th, 2017. Demographics and clinical data on neoadjuvant treatment and surgical resection were documented. Patients were stratified into two cohorts: surgical resection post neoadjuvant therapy, and systemic therapy only. Tumor resection rates and overall survival (OS) were the primary study endpoints.

Results: Overall, 415 patients were included in the study. Significant heterogeneity was identified in neoadjuvant treatment. Stratification in FOLFIRINOX-based therapy, gemcitabine-based therapy, and combination of the two and subsequent outcome comparison did not demonstrate significant differences in OS of 331 non-resected LAPC patients (17.4 *vs.* 16 *vs.* 17.2 months, respectively, P=0.134). Eighty-four patients underwent resection of the primary tumor (20%), after a median time of 5 months of neoadjuvant therapy. FOLFIRINOX-based therapy and stereotactic body radiation therapy (SBRT) correlated with increased probability of resection (P=0.006). Resected patients had better performance status, smaller mean tumor size (35 *vs.* 39 mm, P=0.029), and lower median CA19-9 values (72 *vs.* 206 U/mL, P<0.001) at PMDC. A significant improvement in OS was identified in resected patients, compared to non-resected (35.3 *vs.* 16.3 months, P<0.001). The difference remained significant when non-resected patients were matched for time of neoadjuvant therapy (19.9 months, P<0.001). Positive nodal status (P=0.026) and positive margin resection (P=0.032) correlated with shorter post-resection survival in the resected cohort.

Conclusions: Surgical resection of the primary tumor after neoadjuvant therapy is feasible in 20% of LAPC patients and results to significantly higher OS, reaching a median time of 35 months from diagnosis.

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