

Predictors of Survival among Early Onset Pancreatic Adenocarcinoma Patients.

A Tertiary Care Center Experience

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Abstract

Objectives: To characterize clinical features of early onset pancreatic adenocarcinoma (EOPC) patients and explore prognostic factors affecting their survival.

Methods: Retrospective review of 95 patients, ≤ 45 years old, who presented to the University of Alabama Hospitals with pancreatic adenocarcinoma from September 1998 to June 2018.

Results: Median survival time was 12.9 months for all patients. Obesity, male gender, race, and tumor location were not associated with survival. Smoking at time of diagnosis increased risk of death by three folds (HR 3.05, 95% CI, 1.45 – 6.40). Risk of death decreased by 64% (HR 0.36, 95% CI, 0.16 – 0.78) if patients underwent surgery. Median survival was 119.5 months for stage I, 29.9 months for stage II, 23.23 months for stage III, and 6.3 months for stage IV patients. The survival benefit of chemotherapy was only significant with the use of FOLFIRINOX.

Conclusion: Some established prognostic features in typical pancreatic adenocarcinoma patients are not predictive of survival in young patients. Cigarette smoking, a known risk factor for the development of EOPC, is also a significant predictor of survival in this patient population. Efforts to improve prognosis of EOPC include early detection, tobacco control, individualized treatment protocols, and studying the biological behavior.

Key words: pancreatic adenocarcinoma, early onset, smoking, survival, surgery