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## P092

## Preoperative serum glucose to lymphocyte ratio as an independent prognostic factor; developing 3-scored survival estimating system in resected pancreatic ductal adenocarcinoma

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**Introduction**: We hypothesized that elevated glucose to lymphocyte ratio (GLR) might be a sensitive prognostic biomarker to determine the disease specific survival of pancreas ductal adenocarcinoma (PDAC). Moreover, we try to develop scoring system to predict the prognosis of PDAC by using only clinically available preoperative parameters

**Methods**: Between May 1999 and August 2016, 244 patients with resectable PDAC underwent surgical resection at Severance Hospital, Korea. Medical records were retrospectively reviewed. The preoperative clinical parameters, inflammatory markers, glucose, GLR, albumin, tumor size, carbohydrate antigen (CA) 19-9, and follow up data were collected. Survival analysis and Cox regression were performed to evaluate oncologic outcomes

**Results** : Among the preoperative detectable parameters, 1) GLR >105.5 (HR=1.6074, 95% CI: 1.119-2.308 p=0.0102), 2) CA19-9 $\ge$ 150 (HR=1.432, 95% CI: 0.999-2.053, p=0.0405), and 3) tumor size  $\ge$  2 cm (HR=1.586, 95% CI: 1.113-2.259, p=0.0106) were independent prognostic factor in determining long-term cancer-specific survival by multivariate analysis. We developed 3-scored survival estimating system (0 to 3) by summing these three parameters. Overall survival is significantly different according to clinically divided subgroups by 3-scored survival estimating system (p<0.001)

**Conclusions** : GLR is an independent prognostic factor of disease-specific survival in PDAC. Based on preoperative detectable parameters including GLR, CA 19-9, tumor size, we developed 3-scored survival estimating system which can serve as a model for assessing the possibilities of individual treatment option for PDAC patients

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