AB078. P050. Efficacy of integrated immune ratio associated with tumor growth and prognosis in pancreatic cancer

Ning Pu, Guochao Zhao, Wenhui Lou, Wenchuan Wu

Fudan University, Shanghai 200433, China

Background: The prognosis of pancreatic ductal adenocarcinoma (PDAC) remains poor owing to its difficulty in diagnosis and therapy. Immunotherapy has revealed its robust performance in several malignancies.
Methods: The tissue microarray was stained and analyzed associated with clinicopathological characteristics. The preclinical murine models administrated with various immunotherapies were analyzed by growth inhibitor, flow cytometry, ELISA and immunohistochemistry.
Results: The infiltrating FoxP3+ regulatory T cells (Tregs) and PD-1 expression in tumor tissues were associated with survival, while CD8+ infiltrating T cells (TILs) was lack of evidence. Then, CD8, FoxP3 and PD-1 expression were merged together to create a new estimated value—integrated immune ratio (IIR) comprehensively considering their drawbacks, which showed excellent distinction in risk stratification of survival. IIR was verified as an independent prognostic factor according to multivariate analysis, so did T and N classification. In the preclinical murine model, CD25 and TGF-β combinational blockade revealed higher tumor growth inhibitor value. Under overall consideration, the combinational therapy significantly depleted periphery and intratumoral FoxP3+ Tregs and enhanced intratumoral CD8+ T cells compared to control or anti-TGF-β monotherapy (all $P<0.05$). The intratumoral IL-10, TGF-β was notably lower associated with higher IFN-γ excretion with the combinational immunotherapy. Such combinational immunotherapy was further verified to synergize with anti-PD-1 monotherapy to promote the tumor growth inhibitor and cure rate.
Conclusions: The combination of CD25, TGF-β and PD-1 blockade has a potentially effective role in inhibiting tumor formation and progression and provides a strong rational strategy in clinical trials on the basis of IIR.

doi: 10.21037/apc.2018.AB078

Cite this abstract as: Pu N, Zhao G, Lou W, Wu W. Efficacy of integrated immune ratio associated with tumor growth and prognosis in pancreatic cancer. Ann Pancreat Cancer 2018;1:AB078. doi: 10.21037/apc.2018.AB078