Characterization of the Programmed Death 1 Protein (PD-1) and its Ligand (PD-L1) in a Murine Cecal Ligation Model of Sepsis

M. E. Pulse1, P. Nguyen1, J. Pierce1, K. Peterson1, D. Valtierra1, W. J. Weiss1, B. Sellman2, N. Ulbrantidi, S. Krishnan2, J. Suzich2, W. Blair2
1UNT Health Science Center – Preclinical Services, Fort Worth, TX; 2MedImmune, Gaithersburg, MD

Abstract

Introduction

Sepsis is a failure of the immune system to respond to an infection resulting in organ dysfunction and multiorgan failure. Our current understanding of the pathophysiology of sepsis is far from complete. To further the understanding of sepsis, we have developed a mouse model of cecal ligation and puncture (CLP) to study the effects of PD-1 and PD-L1 on sepsis and sepsis-related organ dysfunction. We have identified therapeutic dosing of anti PD-L1 antibodies in the CLP model.

Methods and Materials

Panel 1 (A and B): Dot Plots and Gating Strategies of PD-1 and PD-L1 Stained Blood Cells and Splenocytes Harvested from CLP and Sham Animals

Results:

Panel 2: Mean Percentages of PD-1 & PD-L1 Positive Blood Cells & Splenocytes After Surgery

Panel 3: 10-Day Kaplan-Meier Survival Curves of Antibody Treated CLP Mice

Conclusions:

References

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