The Role of Macrophage Migration Inhibitory Factor in Alcoholic Liver Disease

Introduction
Alcoholic Liver Disease (ALD) is a progressive disease characterized by a spectrum of disorders. The pathogenesis of ALD is complex and not well-understood. Macrophage Migration Inhibitory Factor (MIF) is seen as a key mediator in many disease pathways. The focus of this work explores the role MIF may play in the progression of ALD.

Hypothesis
MIF decreases leukocyte infiltration in the liver in the Acute-on-Chronic model.

Methods
Chronic Model of Ethanol Exposure

Results
Adhesion Markers

Key Findings
• Trends towards increased adhesion molecules in MIF deficient mice
• Trends towards increases in certain MIF receptors in MIF deficient mice
• Trends towards an increase in MIF receptor ligand MIP 2 in MIF deficient mice

Conclusion
• The Gao Binge model upregulates markers of leukocyte infiltration in liver tissue of mice
• Acute neutralization or removal of MIF in the Gao Binge model shows increased expression of such markers
• Favorable environment for infiltration

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