

POSTER PRESENTATION

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Hemodynamics effects of adrecizumab in sepsis RAT

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Introduction

Sepsis and septic shock still represent major health issues, with persisting high morbidity and mortality rates in critically ill patients. Cardiac dysfunction [1] occurs frequently during severe sepsis.

Adrenomedullin (ADM) has been identified as a key mediator in vascular tone regulation^[1]. A newly developed anti-ADM antibody Adrecizumab (ADZ) may improve hemodynamic dysfunction during resuscitated murine, cecal ligation and puncture (CLP)-induced septic shock [2].

Objectives

To determine the beneficial role of ADZ on hemodynamic impairment in a rat model of acute sepsis.

Methods

For induction of polymicrobial sepsis, cecal ligation and puncture (CLP) [3] was performed in Wistar male rats. ADZ (2 mg/kg) was injected IV 24 h after the surgery. There were 7 animals per group. Invasive blood pressure

and cardiac function (by echocardiography) were assessed until 2 hours after ADZ injection. Statistical analysis was performed with 2 ways ANOVA.

Results

Septic rats had lower mean arterial pressure (MAP) ($p < 0.0001$) 24 h after surgery (at baseline) compared to sham. Septic animals with ADZ had a trend to have a greater MAP. A transient decrease of SF was observed 15 min and 1 h after injection of ADZ ($p = 0.05$). On the other hand cardiac output seems to be increased by ADZ ($p = 0.61$).

Conclusions

During sepsis in rats, treatment by ADZ seems to have a beneficial effect on cardiac and vascular dysfunction. These preliminary results need to be confirmed in pre-clinical and clinical studies.

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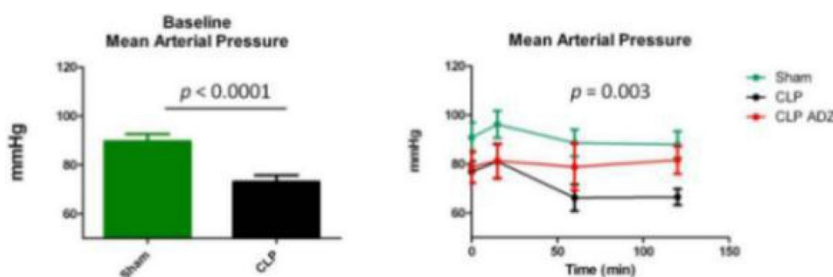


Figure 1 [Mean arterial pressure]

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