



Correlation between adiponectin and hemorrhagic shock in mice

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ABSTRACT. The aim of this study was to explore the relationship between adiponectin (ADPN) and hemorrhagic shock (HS) and the recovery after HS. This is significant for further understanding of the pathophysiological processes of HS and the development of better treatments. In total, 72 male C57BL/6 mice were assigned randomly to three groups: control, HS, and recovery (N = 24). The HS mouse model was constructed by hemorrhage of the carotid artery and recovery was achieved by tail vein injection of Ringer's solution. The level of ADPN in the peripheral blood of mice before and after recovery was detected by enzyme-linked immunosorbent assay. Compared to control, HS mice showed significantly decreased ADPN levels with the extension of HS time while the level of ADPN in recovery mice increased significantly and remained high. The variation of ADPN levels was closely associated with the occurrence of HS in mice and their recovery, suggesting that ADPN might act as a biomarker of inflammation and have potential for the treatment of HS.

Key words: Adiponectin; Inflammation; Hemorrhagic shock; Cytokines; Mean arterial pressure; Serum