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Anti-inflammatory activity of Corticosteroids and Vitamin C Combination in HUVECs culture Sepsis Model

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Abstract : Sepsis is a serious health problem with high morbidity and mortality. The main factor deciding the final outcome in sepsis is an inflammatory response, not a bacterial infection. The purpose of this study was to evaluate the combination of corticosteroids and vitamin C in HUVECs sepsis conditions to reduce the inflammatory response of TNF- α and IL-1 β . Sepsis conditions obtained by co-culture 3 treatments group of HUVECs cell and monocytes (THP1), stimulated with 10 ng/ml LPS for 3 hours. The concentration of TNF- α and IL-1 β were analysed using ELISA at 450 nm wavelength. The results showed that TNF- α on the second, fourth and eighth hours of the test is significant differences in the levels of TNF- α are those of methylprednisolon10 μ M. The combination of corticosteroids and vitamin C protection against endothelial effects through suppressing the inflammatory response due to infection which proved to decreased levels of pro-inflammatory cytokines which in this case is TNF- α and IL-1 β .

Keywords: anti-inflammation, Corticosteroids, Vitamin C, Sepsis.

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