Examination of Setarud (IMODTM) in the management of patients with severe sepsis

Abstract

Background and the purpose of the study: Analysis of current immunomodulating strategies indicates that monovalent approaches are unlikely to restore immunostasis or achieve complete therapy of sepsis. Setarud (IMOD) as a mixture of urtica, carotenoids, urea, and selenium has been recently patented for its potential in reduction of Tumor Necrosis Factor alpha (TNF-) and Interferon- and Interleukin-2 levels. The aim of this study was to examine efficacy of IMOD in the management of patients with severe sepsis.

Methods: Twenty patients with severe sepsis and acute physiology and chronic health evaluation (APACHE) score of more than 20 were randomized to receive standard treatment of severe sepsis (control group) or standard treatment plus IMOD (IMOD group). The group treated with IMOD for 14 days was according to the pilot study and regarding the stability of patient's conditions in the ICU. Of course patients in both groups received standard treatment and all were monitored for 28 days. Blood samples were analyzed for interleukins (IL-1, IL-2, IL-6), plasminogen activator inhibitor (PAI-1), TNF-, total thiol molecules (TTM), nitric oxide (NO), total antioxidant power (TAP), and lipid peroxidation (LPO). Daily APACHE, Sequential Organ Failure Assessment (SOFA), and Simplified Acute Physiology Score (SAPS) were calculated.

Results and major conclusion: Comparing with controls, IMOD was significantly effective in improving SAPS, SOFA, and APACHE scores, and reduction of mortality rate. Among tested inflammatory biomarkers, IMOD significantly improved TTM and TNF- values. It is concluded that IMOD might be added as a safe adjuvant to standard treatment of severe sepsis.

Keyword
Immunomodulation, IMOD, ICU, Setarud, Severe, sepsis