

## EVALUATION OF CORTISOL LEVEL AND CELL-MEDIATED IMMUNITY RESPONSE CHANGES IN INDIVIDUALS WITH POST-TRAUMATIC STRESS DISORDER AS A CONSEQUENCE OF WAR

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**Aim:** To investigate the level of blood and urine cortisol and cell mediated immunity response changes among patients with post-traumatic stress disorder resulting from war.

**Methods:** In this case-control study, 20 patients with post traumatic stress disorder (PTSD) with the mean age of  $41.9 \pm 7.6$  and 20 healthy individuals (control group) with the mean age of  $42.4 \pm 7.6$  were compared. At the beginning, 24-hour urine and blood samples were obtained, and three antigens, tuberculosis, tetanus and candida were injected sub-cutaneously. Skin reaction was evaluated for each of the injections. Analysis was performed using t-test.

**Results:** There was a significant increase regarding cell-mediated immunity in cases in comparison with the controls ( $p = 0.017$ ) and also a significant increase of blood cortisol was observed in cases ( $p = 0.003$ ). There was no significant difference in two groups regarding urine cortisol level.

**Conclusion:** This study showed that there was a significant difference in the activation of cell-mediated immunity in PTSD patients as compared to control group. This increase in activity was not due to the influence of life stressors or intensity of illness signs or following illnesses. It is recommended to study and treat the autoimmune disease in PTSD patients more seriously in the countries like Iran that were involved in war problems.