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LEVELS OF PLASMA SERUM DEHYDROISOANDROSTERONE-SULFATE AND CORTISOL IN COMBAT VETERANS

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Objectives: Recent studies suggest that such neuroactive steroids as dehydroepiandrosterone-sulfate (DHEAS) and cortisol play an important part in conditioning psychiatric disorders in combatants. Cortisol may have a neurotoxic effect whereas DHEAS can produce a neuroprotective impact.

Method: We have investigated the morning plasma level of DHEAS and cortisol as well as DHEAS/cortisol ratio in the group of forty combat veterans in the remote period of combat stress and the same parameters - in the control group consisting of 30 healthy males (N=30).

Results: In comparison with the control group, the combatants reliably showed considerably higher level of cortisol ($p < 0,05$), lower level of DHEAS ($p < 0,001$) and lower DHEAS/cortisol ratio ($p < 0,001$). Then the veterans were divided into two groups with the help of the "Mississippi Scale for Combat-Related Posttraumatic Stress Disorder": those having post-traumatic stress disorder (PTSD) and those without this diagnosis. As a result, no trustworthy difference between levels of DHEAS, cortisol and their proportion was found in PTSD-positive and PTSD-negative veterans. Each of these groups displayed the reliable reduction of DHEAS level as compared to the control group.

Conclusions: The results of our investigation demonstrate that the veterans differed significantly from the control group in the level of neurosteroids. This fact apparently cannot be linked to PTSD symptoms. Thus there is an urgent need for further examination of clinical and psychological components correlated with altered levels of DHEAS and cortisol in combat veterans.