

## **PRESS RELEASE**

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### **Short-term memory impaired in war veterans with post-traumatic stress disorder**

ZAGREB – Croatian war veterans with post-traumatic stress disorder (PTSD) have an impaired short-term memory, shows a study published in the new, thematic issue of the *Croatian Medical Journal*.

Researchers from the Split University Hospital used two complex tests to compare the short-time memory of 20 veterans with PTSD and 21 healthy subjects. The control group was chosen among the employees of the Croatian daily newspaper *Slobodna Dalmacija*, and matched with the group of veterans according to age, sex, and education.

In the first test, veterans with PTSD and healthy subjects did not differ in their ability to copy a complex geometric figure, which means that the functions of visual perception and visual construction were not impaired in patients with PTSD. However, when the subjects were asked to draw what they remembered, immediately and 30 minutes after they saw the figure, veterans with PTSD made twice as many errors as the healthy subjects. Interestingly, in neither of the two groups there were no significant differences in number of errors on the drawings made immediately and 30 minutes after seeing the figure. This finding indicates that all subjects, but especially ones with PTSD, had more difficulties with acquiring new information than with recalling the already memorized information. The results of this study

are therefore in line with previous findings that indicated deficits in immediate recall function, with preserved delayed recall in patients with PTSD.

Also in the second test, which assessed the visual perception, visual memory and abilities of visual construction, veterans with PTSD made more errors than healthy subjects.

The authors of this study point out that the impairment of short-term memories in veterans with PTSD can be explained by the trauma-induced changes in a part of the brain called hippocampus. Increased arousal and difficulties with concentration in PTSD patients may also be one of the reasons for the larger number of errors on the short-term memory tests. However, the measurement instruments used in this study did not allow the authors to reach any firm conclusions about the causes of the observed short-term memory deficits.

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