**Post-traumatic stress disorder**

Is prolidase a neuroprotective molecule in post-traumatic stress disorder?

**Suleyman Demir**, Mahmut Bulut, Abdullah Atli, Ibrahim Kaplan, Pinar Guzel Ozdemir, Yasin Bezo, Mehmet Cemal Kaya, Cem Uysal, Aytekin Sir

1Department of Psychiatry, Dicle University, Diyarbakir-Turkey
2Department of Biochemistry, Dicle University, Diyarbakir-Turkey
3Department of Psychiatry, Yuzuncu Yil University, Faculty of Medicine, Van-Turkey
4Department of Psychiatry, Marmara University, Istanbul-Turkey
5Department of Forensic Medicine, Dicle University, Diyarbakir-Turkey

**e-mail address:** drsuleymandemir@hotmail.com

**Objective:** Post-traumatic stress disorder (PTSD) is a psychiatric disorder which develops after exposure to a traumatic event. In recent years, researches on roles of biologic effects in PTSD's etiology have increased. Prolidase is a manganese-dependent cytosolic exopeptidase that cleaves imidodipeptides containing C-terminal proline or hydroxyproline, and its activity has been documented in plasma and in various organs, such as the heart and the brain. In humans, the deficiency of the enzyme activity causes a rare autosomal recessive inherited disorder with a highly variable clinical phenotype such as chronic recurrent infections, mental retardation, splenomegaly, and skin lesion. The status of prolidase, which has significant biologic effects in PTSD's etiology, has been assessed. In this study, we aimed to investigate the relationship between PTSD and serum prolidase activity.

**Methods:** Among the survivors of the Van earthquake on 23 October 2011, 25 patients who had been diagnosed with PTSD according to DSM-IV criteria and 26 cases who were traumatized but not diagnosed with PTSD as well as 25 healthy controls who never experienced an earthquake were enrolled in the study. Serum prolidase activity of all participants was measured and compared across groups. All traumatized cases were assessed using the PTSD Check List Civilian Version (PCL-C).

**Results:** The mean prolidase activity of PTSD patients was significantly lower than that of traumatized cases without PTSD diagnosis, which in turn is significantly lower than the prolidase activity of the cases who never experienced an earthquake (p<0.01).

**Conclusion:** Studies have also noted that glutamate and nitric oxide (NO) play a causal role in anxiety-related behaviors. Because of the prominent role of NO in neuronal toxicity, cellular memory processes, and as a neuromodulator, nitrergic pathways may have an important role in stress-related hippocampal degenerative pathology and cognitive defects seen in patients with PTSD. It has been shown that elevated prolin levels activated the NMDA receptor. It has been considered that prolidase has a role of regulation of nitric oxide synthesis. We observed in this research that while prolidase levels decreased, the substance tended to reduce NO and the neurotoxic effects of glutamate. Therefore, we suggest that Prolidase is a neuroprotective molecule.

**Keywords:** neuroprotective, post-traumatic stress disorder, prolidase activity

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**Prevalence of PTSD and depression among Iraqi Yazidi refugees**

Atilla Tekin, Hekim Karadag, Metin Suleymanoglu, Merve Tekin, Gokay Alpak

1Department of Psychiatry, Cizre State Hospital, Sirnak-Turkey
2Department of Psychiatry, Gaziantep University, Gaziantep-Turkey

**e-mail address:** gokayalpak@gmail.com

**Objective:** A number of studies have shown that post-traumatic stress disorder and depression are common psychiatric disorders among refugees. Estimates for the prevalence of PTSD in refugees have ranged from 3% to 86% and those for depression from 3% to 80%. The aim of this study was to investigate the prevalence of PTSD and depression among Iraqi Yazidi refugees.

**Methods:** This cross-sectional study was conducted in the Cizre/Sirnak refugee camp. Sample size calculation yielded 238. Two experienced and native Kurdish-speaking psychologists evaluated the participants. DSM-IV-TR diagnostic criteria for diagnosis of PTSD and depression were considered. The Stressful Life Events Screening Questionnaire was performed to each participants.

**Results:** The frequency of PTSD was 42.9% and the frequency of depression was 39.5%. The rate of PTSD and depression in women
refugees was statistically higher than among male refugees. Traumatic events associated with PTSD were “had been in a region that is affected by war,” “witnessed the death of a close friend or a family member” and “witnessed the abduction or being taken hostage of a close friend or a family member”.

**Conclusion:** Our findings indicate that PTSD and depression are frequently observed in war-affected regions, especially among women refugees. Loss and violence are important factors for the development of PTSD in refugees.

**Keywords:** depression, post-traumatic stress disorder, refugee

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[Abstract:0238] **Post-traumatic stress disorder**

Post-traumatic stress disorder and major depressive disorder among caregivers of patients with stroke

Halil Ibrahim Tas¹, Ugur Cakir², Ilgin Sade³, Irem Ulubil³

¹Department of Psychiatry, Izmit Seka State Hospital, Izmit-Turkey
²Department of Psychiatry, Abant Izzet Baysal University, Faculty of Medicine, Bolu-Turkey
³Department of Psychiatry, Kocaeli University, Kocaeli-Turkey

e-mail address: tashalilibrahim@gmail.com

**Objective:** In this study, it has been aimed to investigate prevalence and risk factors of post-traumatic stress disorder (PTSD) and major depressive disorder (MDD) among caregivers of stroke patients.

**Methods:** Eighty-six caregivers participated in the study. All caregivers of stroke patients have joined a physical rehabilitation program in Kocaeli University Hospital and a private rehabilitation center between April and June 2013. Sociodemographic form and general health questionnaire 12 (GHQ-12) have been used to assess the cases. PTSD and MDD modules of Structured Clinical Interview for DSM-IV (SCID-1) have been used for the diagnose of PTSD and MDD.

**Results:** 37.2% of participants have met the diagnostic criteria for DSM-IV MDD and 20.9% for PTSD. Cluster analysis revealed that caregivers can be divided into two subgroups which are classified by the presence of MDD, PTSD and mean scores of GHQ-12. There was a statistically significant difference between the two caregiver clusters in terms of patients’ gender, age, and the duration of the illness, employment, sharing the same house with the patient, the duration of caregiving, history of a psychiatric disorder, history of a psychiatric disorder in first degree relatives, financial burden of medical expenses.

**Conclusion:** Results of this study have shown that there is a substantially high prevalence of PTSD and MDD among caregivers of stroke patients. The high psychopathology rates among caregivers of stroke patients reveal the importance of therapeutic intervention attempts for relatives of these patients.

**Keywords:** depression, trauma, stroke

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