POST-TRAUMATIC STRESS DISORDER

[Abstract:0136] Post-traumatic stress disorder

Serum total oxidant and antioxidant status in earthquake survivors with post-traumatic stress disorder

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Objective: Earthquakes are among the most destructive life-threatening natural disasters and an important cause of death. Despite the fact that earthquakes are frequently experienced and devastating natural disasters, less attention has been paid to risk factors and psychological effects. PTSD is common and chronic mental disorder is likely to develop in anyone who has been exposed to violent trauma. Oxidative stress has been shown to play an important role in the pathogenesis of post-traumatic stress disorder. Although there are some studies on oxidative stress and post-traumatic stress disorder, no reports are available on the serum total oxidant and antioxidant status in earthquake survivors with PTSD. Therefore, this study aims to investigate the serum total oxidant and antioxidant status in earthquake survivors with chronic PTSD.

Methods: This study was consecutively conducted in the Department of Psychiatry at Yuzuncu Yil University (Van, Turkey) between June 2012 and February 2013. In this study, 45 patients with chronic PTSD (15 males, 30 females) and 40 non-PTSD subjects (14 males, 26 females) were enrolled. The control group consisted of 40 healthy earthquake survivors. Patients with PTSD had not received any treatment prior to the study. The oxidative status was determined using a total antioxidant status and total oxidant status measurement and a calculation of the oxidative stress index. Patients were assessed for PTSD by a psychiatrist with the Clinician-Administered PTSD Scale (CAPS) and the Clinical Global Impression (CGI) scale.

Results: There were no statistically significant differences between the two groups regarding age, gender, or body mass index. There were no statistically significant differences in the total antioxidant status, total oxidant status, or oxidative stress index when comparing subjects with and without PTSD (all, p>0.05). We found no correlations between Clinician-Administered PTSD Scale scores and oxidant and anti-oxidant stress markers (all, p>0.05).

Conclusion: Our results suggest that the total oxidant and antioxidant status may not affect earthquake survivors with PTSD. This is the first study to evaluate the oxidative status in earthquake survivors with PTSD. Further studies are necessary to confirm these findings.

Keywords: oxidative stress index, earthquake survivors, post-traumatic stress disorder

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