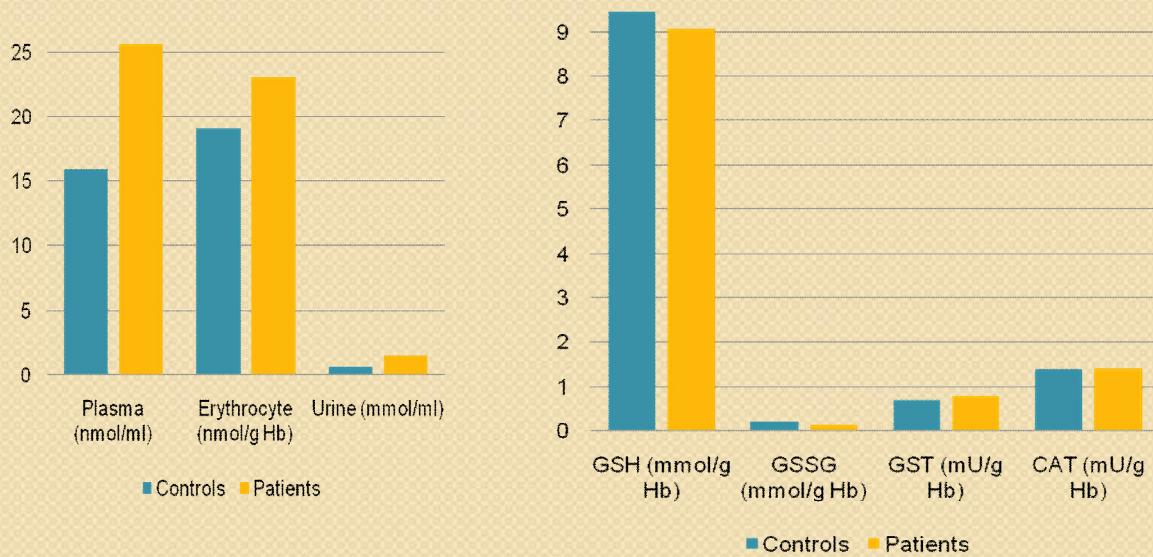


# Measurement of Oxidative Stress Parameters in Psychosis

A. Suha Yalçın<sup>1</sup>, Bahadır Eker<sup>1</sup>, Memduha Aydın<sup>2</sup>, M. Kemal Kuşçu<sup>2</sup>

<sup>1</sup> Department of Biochemistry and <sup>2</sup> Department of Psychiatry, School of Medicine, Marmara University, 34668 Haydarpaşa-İstanbul, Turkey

Oxidative stress results when the amount of free radical formation exceeds the capacity of the antioxidant defense system. It is related to a number of pathological conditions including: cardiovascular disease, neurodegenerative disease, cancer, diabetes mellitus, gastrointestinal system disorders, inflammation and aging. On the other hand, the impact of care giving on the schizophrenia prognosis has been investigated for long time. However, there is no study that investigates the possible adverse effect of caregiver's attachment style and expressed emotion on the schizophrenic patient's objective measure of stress. One objective measure of stress is different parameters of oxidative stress. This study aimed to examine the relation between the oxidative stress level of schizophrenics and caregiver's attachment patterns and expressed emotion. Participants were schizophrenic patients and their mothers as well as healthy controls.



**Figure 1**  
Plasma, erythrocyte and urinary malondialdehyde (MDA) levels of patients and controls

**Figure 2**  
Erythrocyte glutathione (GSH/GSSG), glutathione transferase (GST) and Catalase (CAT) levels of patients and controls

Blood and urine samples of patient and control groups were examined in terms of oxidative stress parameters. The results showed that plasma, erythrocyte and urinary malondialdehyde levels were higher whereas glutathione levels were lower than those of control group in schizophrenic patients.

The present study reports the relation between oxidative stress parameters, mothers' attachment and expressed emotion levels in schizophrenia. Although the study should be replicated with higher sample size, we believe that the findings will contribute to the future psychotherapeutic and psychopharmacologic interventions of schizophrenia.