Abstract

Objectives: Generalize epilepsy is a chronic disorder characterized by recurrent seizure which can increase the content of reactive oxygen species and superoxide generation in the brain. The aim of the present study was to estimate the plasma level of glutathione reductase and glutathione peroxidase (as anti oxidant) and MDA (as marker of oxidative stress) in patient with epilepsy.

Methods and materials: Thirty epileptics and one hundred twenty seven control persons referred to Iranian Blood Donation Organization (Ardabil center) were involved in the study of plasma level of glutathione peroxidase and glutathione reductase and MDA were determined by spectrophometric assay.

Results: The analysis of the plasma from epileptics revealed: increased MDA level and decreased concentration of glutathione reductase and glutathione peroxidase in comparison of control persons and theses differences were statistically significant.

Conclusion: Our results indicate on the oxidant – anti oxidant disturbances in epileptic patients, which can play an important role in the pathophysiology of epilepsy.

Suggestion: We suggest that further studies should be done on the role of oxidative stress in patients with epilepsy.

Keywords: Oxidant – anti oxidant, MDA, glutathione peroxidase- glutathione reductase.