

Glutathione peroxidase in early and advanced Parkinson's disease

P Johannsen, G Velander, J Mai, EB Thorling and E Dupont

Department of Neurology, University Hospital, Aarhus Kommunehospital, Aarhus, Denmark.

A defective antioxidant scavenging system plays a major role in one of the theories of the pathogenesis of Parkinson's disease. The aim of this study was to investigate whether there is a general difference in antioxidant activity between early and advanced cases of Parkinson's disease. Twenty five recently diagnosed patients, without any clinical fluctuations (group A), and 25 patients in a late phase of the disease with severe fluctuations in response to levodopa therapy (group B) were included in the study. Erythrocyte glutathione peroxidase was determined as a measure of antioxidant activity and significantly lower values were found in group B than in group A. Regression analyses in groups A and B showed significant correlation between glutathione peroxidase and duration of disease, but not between glutathione peroxidase and age of patients.

