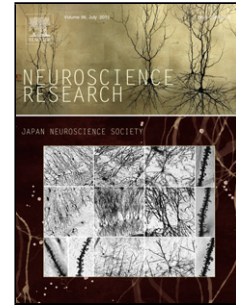


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# A LOW BLOOD COPPER CONCENTRATION IS A CO-MORBIDITY BURDEN FACTOR IN PARKINSON'S DISEASE DEVELOPMENT

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## Abstract

Parkinson's disease (PD) patients are often characterized by copper dyshomeostasis, which is responsible for ROS formation and fibrillogenesis. However, the relationships between copper metabolism and PD development are unclear. In this study in 50 patients with PD (pPD) and 50 age-matched healthy individuals, the serum total copper concentration, oxidase activity, ceruloplasmin and SOD3 protein concentrations were measured; and amount of copper atoms per ceruloplasmin molecule was calculated. These parameters were lower in pPD relatively to healthy volunteers. Decrease in concentrations of SOD3, ceruloplasmin, and copper but increase

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