Oxidative Stress, Trace Elements, and Circulating Microparticles in Patients with Gaucher Disease Before and After Enzyme Replacement Therapy.

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Abstract:

We studied the level of lipid peroxide, nitric oxide (NO), trace elements (TEs), and microparticles (MPs) in Gaucher disease (GD) before and after 1 year of enzyme replacement therapy (ERT). A total of 15 children with GD and 15 healthy controls were enrolled in this study. Serum level of lipid peroxide, NO, and TEs was determined. The MPs were detected by flow cytometry. The level of lipid peroxide was significantly higher in the patients than in the controls even after ERT. Although NO level was normalized in the patients after ERT, zinc and copper were still lower in the patients after ERT. The percentages of various MPs were significantly higher in the patients than in the controls both before and after ERT. There were positive correlations between chitotriosidase and both lipid peroxide and total MPs.

Published In:

Clin Appl Thromb Hemost, ,