

Abstract

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Relationship between musculoskeletal symptoms and blood markers of oxidative stress in patients with chronic fatigue syndrome.

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OBJECTIVE AND METHODS: In 21 patients with chronic fatigue syndrome (CFS) versus 20 normal subjects, we investigated the oxidant/antioxidant balance and its correlation with muscle symptoms.

RESULTS: Patients versus controls showed significantly lower Lag Phase and Vitamin E (Vit E) concentrations in plasma and low-density lipoproteins (LDL), higher LDL thiobarbituric acid reactive substances (TBARS), higher fatigue and lower muscle pain thresholds to electrical stimulation. A significant direct linear correlation was found between fatigue and TBARS, thresholds and Lag Phase, thresholds and Vit E in plasma and LDL. A significant inverse linear correlation was found between fatigue and Lag Phase, fatigue and Vit E, thresholds and TBARS.

CONCLUSIONS: Increased oxidative stress and decreased antioxidant defenses are related to the extent of symptomatology in CFS, suggesting that antioxidant supplementation might relieve muscle symptoms in the syndrome.

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