Abstract

Clin Infect Dis. 1994 Jan;18 Suppl 1:S62-7.

Acylcarnitine deficiency in chronic fatigue syndrome.

Kuratsune H, Yamaguti K, Takahashi M, Misaki H, Tagawa S, Kitani T.

Osaka University Medical School, Japan.

BACKGROUND: One of the characteristic complaints of patients with chronic fatigue syndrome (CFS) is the skeletal muscle-related symptom. However, the abnormalities in the skeletal muscle that explain the symptom are not clear.

RESULTS: Herein, we show that our patients with CFS had a deficiency of serum acylcarnitine. As carnitine has an important role in energy production and modulation of the intramitochondrial coenzyme A (CoA)/acyl-CoA ratio in the skeletal muscle, this deficiency might induce an energy deficit and/or abnormality of the intramitochondrial condition in the skeletal muscle, thus resulting in general fatigue, myalgia, muscle weakness, and postexertional malaise in patients with CFS. Furthermore, the concentration of serum acylcarnitine in patients with CFS tended to increase to the normal level with the recovery of general fatigue.

CONCLUSION: Therefore, the measurement of acylcarnitine would be a useful tool for the diagnosis and assessment of the degree of clinical manifestation in patients with CFS.

PMID: 8148455