

Abstract

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Acetyl L-carnitine (ALC) treatment in elderly patients with fatigue.

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BACKGROUND: Fatigue is one of the conditions most frequently complained by the elderly. There are few effective treatment options for patients with chronic fatigue syndrome.

OBJECTIVE AND METHODS: To determine the efficacy, tolerability and impact on the fatigue, as well as on cognitive and functional status of elderly subjects with acetyl L-carnitine (ALC), 96 aged subjects (>70 years, range 71-88) were investigated (50 females and 46 males; mean age 76.2 \pm 7.6 and 78.4 \pm 6.4 years, respectively). They met four or more of the Holmes major criteria or at least six of Fukuda minor criteria. Fatigue was measured with the Wessely and Powell [Wessely, S., Powell, R., 1989. Fatigue syndromes: a comparison of chronic postviral fatigue with neuromuscular and affective disorders. *J. Neurol. Neurosurg. Psychiatry* 52, 940-948] scores, with the fatigue severity scale.

RESULTS: At the end of the treatment, we observed a decrease of physical fatigue: 6.2 ($p<0.001$), of mental fatigue: 2.8 ($p<0.001$), of severity fatigue: 21.0 ($p<0.001$) and improvements in functional status: 16.1 ($p<0.001$) and cognitive functions: 2.7 ($p<0.001$). By the end of the treatment, significant differences between the two groups were found for the following parameters: muscle pain -27% versus -3% ($p<0.05$); prolonged fatigue after exercise: 51% versus -4% ($p<0.0001$); sleep disorders: 28% versus 4% ($p<0.05$); physical fatigue: 7 versus -0.5 ($p<0.0001$); mental fatigue: -3.3 versus 0.6 ($p<0.0001$); fatigue severity scale: -22.5 versus 1.2 ($p<0.0001$); functional status 17.1 versus 0.6 ($p<0.0001$); mini mental state examination (MMSE) improvements: 3.4 versus 0.5 ($p<0.0001$).

CONCLUSION: Our data show that administering ALC may reduce both physical and mental fatigue in elderly and improves both the cognitive status and physical functions.

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