

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+/-7.6 and 78.4+/-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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