Effect of coenzyme q10 on myopathic symptoms in patients treated with statins.

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BACKGROUND: Treatment of hypercholesterolemia with statins (3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitors) is effective in the primary and secondary prevention of cardiovascular disease. However, statin use is often associated with a variety of muscle-related symptoms or myopathies. Myopathy may be related in part to statin inhibition of the endogenous synthesis of coenzyme Q10, an essential cofactor for mitochondrial energy production.

OBJECTIVE: The aim of this study is to determine whether coenzyme Q10 supplementation would reduce the degree of muscle pain associated with statin treatment.

METHODS: Patients with myopathic symptoms were randomly assigned in a double-blinded protocol to treatment with coenzyme Q10 (100 mg/day, n = 18) or vitamin E (400 IU/day, n = 14) for 30 days. Muscle pain and pain interference with daily activities were assessed before and after treatment.

RESULTS: After a 30-day intervention, pain severity decreased by 40% (p <0.001) and pain interference with daily activities decreased by 38% (p <0.02) in the group treated with coenzyme Q10. In contrast, no changes in pain severity (+9%, p = NS) or pain interference with daily activities (-11%, p = NS) was observed in the group treated with vitamin E.

CONCLUSION: In conclusion, results suggest that coenzyme Q10 supplementation may decrease muscle pain associated with statin treatment. Thus, coenzyme Q10 supplementation may offer an alternative to stopping treatment with these vital drugs.

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