
Treatment with statins and peripheral neuropathy: results of 36-months a prospective clinical and neurophysiological follow-up.

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Abstract

OBJECTIVES: To confirm the changes in the results of EMG assessment of lower-limb peripheral nerves in patients treated with statins in the longer follow-up period of 3 years.

BACKGROUND: Long-term treatment with statins may have adverse effects: affection of muscles or peripheral nervous system. The frequency of affection of the peripheral nervous system has not been thoroughly investigated; our previous study showed the signs of peripheral nerve damage in the results of EMG assessment.

DESIGN/METHODS: Forty-two patients (23 males, 19 females, mean age 51.9 and 52.3 years) with a definitive diagnosis of combined hyperlipidemia were studied. Other metabolic disorders or chronic ethanol abuse were excluded. Initial examinations included laboratory and neurophysiological measures (peroneal and tibial nerves: MNCV, CMAP, F-wave mean latency; superficial peroneal and sural nerve: SNCV, SNAP). Subsequently, treatment with simvastatin 20 mg daily was initiated. Patients were followed for 36 months with repeated neurophysiological examinations on 24 and 36 months after statin treatment initiation.

RESULTS: None of the patients reported subjective symptoms typical for peripheral neuropathy. Neurophysiological examination of lower-limb peripheral nerves demonstrated statistically significant prolongation of F-wave mean latency on peroneal and tibial nerves (p<0.0001, paired t-test).

CONCLUSIONS: The study confirmed that long-term treatment with statins caused a clinically silent but still definite damage to peripheral nerves when the treatment lasts longer than 2 years.