Effects of ubiquinone (coenzyme Q10) on myopathy in statin users.
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Abstract
PURPOSE OF REVIEW: Statins are associated with muscle complaints, including myositis. The mechanism through which statin use causes muscle toxicity is unknown. One of the theories is that statin therapy reduces coenzyme Q10 levels in muscle mitochondria, which leads to muscle injury and myopathy. The aim of the present article is to review published data on the association between coenzyme Q10 and statin-associated myopathy.

RECENT FINDINGS: Studies have consistently shown that statins reduce coenzyme Q10 levels in serum and that supplementation of coenzyme Q10 increases these levels. However, the effect of statin therapy on coenzyme Q10 levels in muscle has been conflicting. Recently, two pilot studies on coenzyme Q10 supplementation in statin-induced myopathy and one study on the effect of coenzyme Q10 supplementation on serum muscle enzyme levels were published. These three studies were the first randomized trials with coenzyme Q10 supplementation in hypercholesterolemic patients treated with statins. The results of these trials have been contradictory; whereas one seems to support supplementation with coenzyme Q10, the other two do not.

SUMMARY: This review summarizes the current evidence on coenzyme Q10 supplementation in statin-induced myopathy. We conclude that the present evidence does not support coenzyme Q10 supplementation in statin-induced myopathy.

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