THE ROLE OF COENZYME Q10 IN STATIN-INDUCED MYALGIA

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ABSTRACTS

Statin is the most effective medications for LDL cholesterol lowering agent as well as for primary and secondary prevention of cardiovascular disease and it have been shown to decrease morbidity and mortality in coronary heart disease. It is also useful for other common medical disorders like cancer, stoke and inflammatory conditions. However the primary adverse effect limiting their use is myalgia, ranging from benign myalgia to rare cases of fatal rhabdomyolysis. Myalgia is one of the chief complaints patients have while taking statin medications. There are many strategies for treatment of this muscular symptoms include changing statins, adjustment of doses, changing lifestyle modifications and using other way of lipid lowering agents. If myalgia can be treated with CoQ10 supplementation, the patient can maintain the appropriate statin medication and continue to gain its benefits without experiencing the myalgia side effect of the drug. In order to gather all of the most relevant articles related to the chosen topic, a systematic review of the English-language published literature was conducted using Cochrane library, Pub-Med, Sciencedirect with the keywords of myopathy, muscle pain, myalgia, statin, HMG-CoA, reductase inhibitors, Coenzyme Q10, CoQ10, and ubiquinone. These terms were searched separately as keywords, then combined to form a single search using the "and" command. Abstracts were reviewed, and articles addressing the relationship between statin treatment and CoQ10 levels were examined in detail. One randomized control study and one prospective cohort study found a significant relationship between the use of coenzyme Q10 and decrease in myopathic symptoms. However, the other two randomized control study found no clinical significance in decreased

myopathic symptoms with the additional of coenzyme Q10 and its efficacy still remains inconclusive. To conclude, CoQ10 could be used as an adjuvant therapy for statin-induced myalgia since there is no evidence of side effects with Co-Q10 and some studies show a correlation in reduction of myalgia symptoms.