VITAMIN D LEVELS ARE NOT RELATED TO MYALGIAS IN STATIN-TREATED PATIENTS WITH STABLE CORONARY DISEASE

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Background: Vitamin D deficiency is common and has adverse effects in multiple organ systems including the musculoskeletal system. Recent case series have linked low vitamin D levels to myalgias in statin-treated patients and have suggested that supplementation with vitamin D could resolve the myalgia. The aim of this post hoc analysis of the Treating to New Targets (TNT) trial was to determine the effect of serum vitamin D levels on myalgia incidence in a broad population of statin-treated patients with stable coronary heart disease (CHD).

Methods: A total of 10,001 patients with stable CHD were randomized to atorvastatin 80 mg vs 10 mg daily and followed for a median of 4.9 years. The current analysis includes 1,509 patients who had vitamin D levels determined by radioimmunoassay at baseline and 1 year. Myalgia incidence was compared between vitamin D-deficient patients (<30 ng/ml) and those with levels in the normal range, taking into account both baseline and 1 year vitamin D levels and adjusting for seasonal variations in vitamin D levels. Cox-proportional hazards modeling was used to model myalgia incidence adjusting for age gender, body mass index, renal function (eGFR) and atorvastatin dose.

Results: The mean age was 61±9 years and 83% were male. Vitamin D deficiency was present in 49% of patients at baseline and 56% at 1 year. Myalgia incidence was 8.3% among vitamin D-deficient subjects and 12% among others using baseline levels and 11% and 9.7%, respectively, using 1 year levels. Multivariate Cox proportional hazards modeling taking both baseline and 1-year levels into account showed no relationship between vitamin D deficiency and myalgia incidence (HR 0.89, 95% CI 0.62 to 1.27; p=0.51).

Conclusion: In a large cohort of statin treated patients with stable CHD treated with atorvastatin, vitamin D serum levels were not associated with incidence of myalgia.

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