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Prevalence of Statin-Related Muscular Complications Among Patients with Coronary Artery Disease in Israel

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HMG-CoA reductase inhibitors (statins) improve survival in patients with coronary artery disease (CAD). Muscular complications are the most common reason for statin discontinuation, occuring in up to 5% of statin-treated patients. The exact mechanism leading to statin-related muscular complications is unclear but underlying genetic factors may play an important role.
Methods: We retrospectively examined the prevalence of muscular complications [myalgia or appearance of a new creatine kinase (CK) elevation] among Jewish CAD patients, men and women, treated with statins. The patients' demographic and clinical data and data on CK level were obtained from patients' files. CK elevation was defined as statin-related only if it occurred after initiation of statin therapy, did not occur during an admission for acute coronary syndrome and was not accompanied by increase in troponin or transaminase levels.
Results: The sample group consisted of 323 unselected patients attending our coronary clinic (230 men). A total of 130 patients (40%) had at least 1 muscular complication. An elevated creatine kinase (CK) level (CK>180 IU/L), transient or persistent, was found in 92 men and 20 women (40% vs 21%, p= 0.002, 2-tailed Fisher's exact test). CK elevation of >300 IU/L was observed in 42 men and 6 women (18% vs 6%, p=0.009) and CK levels of >500 IU/L were observed in 21 men and 1 woman (9% vs.1%, p=0.007). Ten patients (3%) had CK levels >1000 IU/L. A total of 34 patients (10.5%) reported of myalgia. There was no difference in the prevalence of myalgia between men and women (10% vs. 12%, p=0.8).
Conclusions: Among Jewish CAD patients, both myalgia and CK elevation develop very commonly during statin therapy. CK elevation is more common among men. No sex difference was found in the prevalence of myalgia.