



Medicinal Plants and New Concerns in Statin Consumption

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Dear Editor-in-Chief

More than 5 million Americans are affected by Alzheimer disease (AD) and by 2050 it is expected to reach more than 13 million. Numerous studies have shown that high cholesterol level is a risk factor for AD (1). Preclinical and human neuropathological studies have clearly shown the correlation between high cholesterol level and Alzheimer disease incidence. Regarding to epidemiological studies, a high total cholesterol level in serum of AD patients has been reported. In a study lower mental state examination scores were reported in patients with high levels of total cholesterol or LDL-C. About three fold total cholesterol level (odds ratio, 2.8) was reported in AD patients (2). Patients with AD having high cholesterol or LDL-C level can experience faster cognitive decline than those having normal cholesterol measures, as can those with an APOE-4 allele. Total cholesterol level has been higher in patients who ultimately have developed mild cognitive impairment or dementia than in those who did not. Similarly, high total cholesterol level has substantially increased the risk of dementia (hazard ratio: 1.42) (3). These findings suggest that high cholesterol level confers an increased risk in development of Alzheimer disease. However, the results of some studies do not confirm this conclusion. Recently some new warnings, particularly for memory loss, came as the result of reports published over the past years, indicating statins cause cognitive impair-

ment (e.g., confusion, memory loss, memory impairment, forgetfulness and amnesia) (3).

Although the data from the observational studies and clinical trials do not suggest that cognitive changes associated with statin use are common or indisputably lead to clinically significant cognitive decline, however, this matter and the reports indicating the possible increase in the incidence of diabetes mellitus which recently were published as well as other adverse effects of these group of drugs need more caution to be considered in the use of these drugs.

It worth mentioning that other than cognitive impairment, 27% increase in diabetes mellitus in rosuvastatin-treated patients compared to placebo-treated patients was reported. High-dose of atorvastatin had also been associated with worsening glycemic control in atorvastatin users (5). Regarding to new reported adverse effects and previously reported ones, searching for new ways to control hypercholesterolemia is becoming an urgent. Recently promising results regarding the effects of herbal medicines in prevention and treatment of hypercholesterolemia (7,8), atherosclerosis (9) and other cardiovascular diseases risk factors (10) have been published. Noteworthy, some of them other than being anti-hyperlipidemic, possess anti-diabetic (11) and anti-amnetic (12) properties. Furthermore, some of these natural products have been able to reduce hepatotoxicity (13) and nephrotoxicities (14) of statins and other

nephrotoxic compounds (15). Therefore, more investigations about the use of these products as complimentary or alternative medications for statins and other lipid regulatory drugs are recommended.

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