Abstract

As the last century saw a decline in the burden of nutritional deficiency and infectious disease, the global burden of chronic disease, cardiovascular disease (CVD) in particular, is increasing. CVD is the leading cause of death in the developed countries. Significant research efforts on the prevention and treatment of this disease have identified elevated plasma cholesterol as a primary risk factor for CVD. Although CVD progresses with hypercholesterolemia, it seems possibility to delay and prevent its development through improvement of diet. Recent findings demonstrate that protein concentrates, protein hydrolysates, and peptides derived from vegetables may promote a significant decrease in blood cholesterol concentration. This reduction in cholesterol and lipid levels by protein, protein hydrolysates, and peptides can be the result of dietary changes, reduced cholesterol biosynthesis, changes in bile acid synthesis, and reduced absorption of lipid cholesterol and bile acid. Combination drug/diet therapies may reduce the number of drug prescriptions, the progressive rise in “optimal” drug dosage and costs associated with pharma-aceutical management of disease. These bioactive vegetable proteins, hydrolysates and peptides may be used in formulation of functional foods, nutraceuticals, and natural drugs because of their health benefit effects suggesting their use as an alternative in treatment of various dyslipidemias, and a potential agent for reducing cardiovascular diseases risk factors.

Keywords