The effect of fish cake on serum lipid levels in rats fed a high-fat diet

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In this study, the effect of fish cake added fish meat on serum lipid level of rats fed a high-fat diet were investigated. Sprague-Dawley male rats (nine weeks) were divided into four groups and fed for seven weeks; control group (normal diet), HF-CON group (high fat diet), HF-FCS (high-fat diet with fish cake added surimi), HF-FCF (high-fat diet with fish cake added fish meat). The groups of HF-FCS and HF-FCF were supplemented high-fat diets containing 10% fish cake. The body weight gain of HF-CON was increased compared with the control group, but significantly decreased by the administration fish cake. In addition, the total cholesterol, triglyceride, and LDL-cholesterol levels were lower in the HF-FCF group than in the HF-CON group, while the HDL-cholesterol level was higher in the HF-FCF group. Serum Glutamic Oxaloacetic Transaminase (GOT) and glutamic pyruvic transaminase (GPT) activities were increased by high-fat diet, but decreased by supplemented high-fat diet with fish cake added fish meat. Moreover, platelet aggregation was significantly improved in the HF-FCF groups compared to the HF-CON group. These results suggest that fish cake added fish meat has potential as a functional anti-obesity food.

Biography

Geunhye Oh has completed her PhD from Ochanomizu University (Tokyo, Japan) and is Professor Department of Food and Nutrition of Silla University in South Korea. She is interested in natural materials such as seaweeds and land plants. She is currently conducting research on the prevention of menopause through animal and cell biological experiments.

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