

Japanese Nuru-Neba Diet extends Healthy Life Longevity (1): Reduction of Abdominal Fat in High Calorie-Diet Mice

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Recently, we proposed the Japanese traditional foods as the potential anti-obesity food materials based on our animal and human studies. In this study, we evaluated effects of the commercially available Japanese traditional Nuru-Neba diet (JNN): contained with root kelp, wakame, agar, white cloud ear, shiitake, nameko, okra, mekabu, cut tororo, shimeji, on the abdominal fat in the high fat mice.

5-week-old male ICR mice were divided as follows: high-fat diet group (HFD group), high-fat diet and JNN group (HFD + JNN 60 mg, HFD + JNN 180 mg and HFD + JNN 300 mg). Each mouse was reared individually and then allowed to free access to diet of 2.7 g per day for six weeks. At the end of the treatment period, the visceral fat was collected. The cholesterol concentrations were determined from plasma and the expression levels of leptin in visceral fat were measured by real-time RT-PCR.

The visceral fat was significantly and dose-dependently decreased in the HFD + JNN group compared to the HFD group. The cholesterol in plasma was significantly decreased in the HFD + JNN 300 mg group compared to the HFD group. The expression level of leptin was significantly suppressed in the HFD + JNN. These results indicate that JNN can be helpful in weight control along with maintaining high-mucopolysaccharide of intestinal mucosa.