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Effects of Radish Leaves on Lipoprotein Lipase Activity in Epididymal Adipose Tissue and Lipid Composition in Serum of Rats Fed High Cholesterol Diets

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This study was conducted to examine of effects of radish leaves on lipoprotein lipase (LPL) activity in epididymal adipose tissue and lipid composition in serum of rats fed normal or high cholesterol diets. Sprague-Dawley male rats weighing 100±10g were randomly divided into six groups, two normal groups and four high cholesterol diets containing 1% cholesterol. Two normal diets groups were classified into a basal diet(N-C group) and that with 2.5% radish leaves group(NR group). The high cholesterol diet groups were classified into a HC group without radish leaves, HRL group supplemented with 2.5% radish leaves, HRM group supplemented with 5% radish leaves and HRH group supplemented with 10% radish leaves group. Body weight, food efficiency ratio and ebdominal fat weight in HC group were higher than the those of normal group, but radish supplemented group was significantly reduced compared to HC group. The levels of serum triglyceride, total cholesterol, LDL-cholesterol and atherogenic index in radish leaves supplemented groups were significantly lower than those of HC group, whereas HDL-cholesterol levels in radish leaves supplemented groups were significantly increased compared to HC group. The LPL activity of epididymal adipose tissue in HRM and HRH groups were significantly lower than those of HC group. This result of this study suggested that improved lipid metabolism observed in rat fed radish leaves may be caused by an alteration of LPL activity in epididymal adipose tissue and lipid composition in serum.