

[P3-6]**Hydrogenated Soybean Oil Containing Conjugated Linoleic Acid (CLA) Reduces Body Fat and Adipocyte Size of mice fed high fat diet**

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We studied the effect of hydrogenated soybean oil containing conjugated linoleic acids(CLA) on the development of obesity of mice fed high fat diet. Four week-old C57BL/6 mice(n=14) were fed high fat diet which containing 23% beef tallow and 7% soybean oil(control group) or diet containing 23% beef tallow and 7% hydrogenated soybean oil containing 17% CLA(CLA group) for 6 weeks. Hydrogenated soybean oil was obtained after 20 min hydrogenation in hydrogenation reactor under the condition of temperature 23℃, hydrogen pressure 0.5 kg/cm², and stirring rate 300 rpm. Mice were sacrificed and body fat of the carcass was measured by proximate analysis. Body weight of CLA group tended to decrease compared with the control group. Epididymus fat and total body fat of CLA group significantly decreased compared with the control group (p<0.05). Hydrogenated CLA significantly decrease proportion of larger fat cells and increase smaller fat cells. It was concluded that hydrogenated soybean oil could have inhibitory effect against development of obesity in mice fed high fat diet.