

Effectiveness of green tea on weight reduction in obese Thais: A randomized, controlled trial

This study was undertaken to investigate the effects of green tea on weight reduction in obese Thais. A randomized, controlled trial involving 60 obese subjects (body mass index, BMI > 25kg/m²) was conducted. All subjects consumed a Thai diet containing 3 meals (8373.6kJ/day) for 12weeks, prepared by the Nutritional Unit at Srinagarind Hospital. The diet contained 65% carbohydrates, 15% protein, and 20% fat. Body weight, BMI, body composition, resting energy expenditure, and substrate oxidation were measured at baseline, and during weeks 4, 8, and 12 of the study. Serum levels of leptin and urine VMA were measured at baseline and during the 12th week. Differences over time and between the treatments (green tea or placebo) over time were determined using two-factor ANOVA with repeated measures. In comparing the two groups, differences in weight loss were 2.70, 5.10, and 3.3kg during the 4th, 8th, and 12th weeks of the study, respectively. At the 8th and 12th weeks of the study, body weight loss was significantly different ($P < 0.05$). At the 8th week, the difference in resting energy expenditure was 183.38kJ/day ($P < 0.001$), the difference in the respiratory quotient was 0.02 ($P < 0.05$), and no significant differences existed in satiety score, food intake, or physical activity. Urine VMA was significantly different in the 12th week of the study ($P < 0.05$). We conclude that green tea can reduce body weight in obese Thai subjects by increasing energy expenditure and fat oxidation.

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