

The relationship of serum chromium with blood glucose and lipids in rural college women

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Chromium(Cr) plays an important role in carbohydrate and lipid metabolism and Cr deficiency impairs glucose tolerance and increase serum cholesterol and triglyceride. The relationships of serum Cr with serum glucose and lipids was examined in 79 female college students in Choong-Nam ares.

Subjects were divided into underweight, normal and overweight groups according to their BMI. The average age, weight, height and BMI were 21.9yr, 55.89kg, 158.54cm and 22.62kg/m², respectively. Height were not different between groups. Serum Cr and glucose concentrations were not significantly different between groups. However, there were tendency of increasing serum Cr level with increasing body weight. Serum cholesterol and LDL-cholesterol concentrations were significantly lower in underweight group than other groups. BMI had positive correlations with LDL-cholesterol, AI and LPH, and negative correlations with HDL-cholesterol/total cholesterol ratio. Serum Cr concentration had positive correlation with serum glucose concentration and negative correlation with LDL-chloestrol and LPH.