

Total calcium intake and metabolic syndrome in middle aged women, Babol, Iran.

ABSTRACT

The metabolic syndrome is an increasingly common condition, especially in women. The objective was to examine the relationship between total calcium and metabolic syndrome in Babolian middle aged women. A systematic random sampling method was used to select 984 women aged 30-50 years of age from urban area in Babol, Mazandaran, Iran. The ATP III criteria were used to classify study participants as having metabolic syndrome. We evaluated eating and drinking patterns by a food frequency questionnaire. Dairy products significantly were consumed in women with metabolic syndrome lower than women without metabolic syndrome ($p = 0.0001$). Those in the highest quartile of calcium intake were lower fasting glucose ($p = 0.0001$), less likely to be abdominal obese ($p = 0.0001$) and had higher HDL-cholesterol ($p = 0.0001$), lower triglyceride ($p = 0.0001$) and lower prevalence of the metabolic syndrome ($p = 0.0001$). The risk of metabolic syndrome for women in the first quartile category of calcium was higher than for those in the highest quartile (OR= 13.200; 95% CI =0.12, 21.93). This study showed that an inverse favorable association of total calcium intake and the metabolic syndrome. It may be supported current dietary recommendations to increase intakes of foods contain calcium but still ambiguous, suggests that high calcium intake has benefits on traits of the metabolic syndrome.

Keyword: Total calcium intake; Metabolic syndrome; Dairy products.