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Dairy Consumption Is Associated With Plasma Triglycerides Reduction and Changes in Body Composition in Overweight and Obesity: A 12-Week Intervention Study

McLellan Katia Cristina Portero, Diegoli Ana Carolina Mourao, Sloan Lance Alan

Katia Cristina Portero McLellan CeMENutri ô µ School of Medicine Brazil

Evidences show that dairy products consumption have beneficial effects on weight, body composition and some biochemical markers. This study aimed to investigate the influence of dairy consumption on anthropometric and biochemical variables in overweight and obese participants of a Nutrition Intervention Program focusing on Lifestyle Change. 53 women between 20 and 45 years with body mass index >25 kg/m² were screened, of which 51 were eligible for the study and initiated the program. Of these, 28 completed the 12-week intervention protocol. The Nutrition Intervention Program consisted of weekly group sessions of nutrition counseling (12 weeks) to discuss issues related to food, behavior and lifestyle. Participants were divided into two groups according to the consumption of dairy products (adequate and low) and were instructed not to make any changes with regards dairy consumption. The group with adequate dairy consumption (AD, n = 16) was instructed to consume three or more daily servings a day of low-fat dairy or semi-skimmed, while the group with low dairy consumption (LD, n = 12) was instructed to consume no more than 1 serving of dairy per day. Dietary intake was assessed by 24-hour recall at the beginning and end of the study, as well as anthropometric and biochemical assessments. Statistical analyzes were performed using SAS version 9.3 software and statistical tests performed were: Chisquare, ANOVA, Tukey and logistic regression. All results were discussed on the basis of $p < 0.05$. One of the main results of this study was the significant reduction of plasma triglycerides in the AD group after the intervention (from 155.47 ± 87.07 to 117.60 ± 53.30), along with the increase of Muscle Mass (MM) and Muscle Mass Index (MMI). In addition, among those who lost weight in the AD group, it was noted an increased fat-free mass (FFM) in most of the individuals. Adequate dairy consumption promoted reduction in plasma triglycerides and showed positive effects on body composition (increase/preservation of lean body mass) of overweight and obese women participants in the Nutritional Intervention Program.