Abstract

Background: It is unclear whether early physical activity has a greater influence on intima-media thickness and metabolic variables than current physical activity. Objective: To analyze the relationship between current and early physical activity, metabolic variables, and intima-media thickness measures in adults. Method: The sample was composed of 55 healthy subjects of both sexes (33 men and 22 women). Total body fat and trunk fat were estimated by dual-energy X-ray absorptiometry. Carotid and femoral intima-media thickness were measured using a Doppler ultrasound device. A 12-hour fasting blood sample collection was taken (fasting glucose and lipid profile). Early physical activity was assessed through face-to-face interview, and the current physical activity was assessed by pedometer (Digi-Walker Yamax, SW200), which was used for a period of seven days. Results: Current physical activity was negatively related to total cholesterol (rho=–0.31), while early physical activity was negatively related to triglycerides (rho=–0.42), total cholesterol (rho=–0.28), very low density lipoprotein (rho=–0.44), and carotid intima-media thickness (rho=–0.50). In the multivariate model, subjects engaged in sports activities during early life had lower values of very low density lipoprotein (b=–8.74 [b 95%CI =–16.1; –1.47]) and carotid intima-media thickness (b=–0.17 [95%CI: –0.28; –0.05]). Conclusion: Early physical activity has a significant influence on carotid intima-media thickness, regardless of the current physical activity.

Keywords

Maintenance of physical activity, physical activity, atherosclerosis, insulin resistance, movement