

CO 42. EFFECTS OF A HOME-BASED EXERCISE PROGRAM IN BODY COMPOSITION, ABDOMINAL FAT AND LIPID PROFILE IN PATIENTS WITH CORONARY ARTERY DISEASE

Joana Pinto, *Escola Superior de Tecnologia da Saúde do Porto.*

Andreia Noites, *Escola Superior de Tecnologia da Saúde do Porto.*

Carla Patrícia Freitas, *Hôpital du Jura Bernois SA, Saint-Imier, Suisse.*

Cristina Melo, *Escola Superior de Tecnologia da Saúde do Porto.*

Aníbal Albuquerque, *Instituto de Ciências Biomédicas Abel Salazar.*

Madalena Teixeira, *Centro Hospitalar de Vila Nova de Gaia/Espinho.*

Introduction: Coronary artery disease and aging seems to be associated with a sedentary lifestyle, contributing to increased abdominal fat and consequently metabolic complications. The exercise can break this cycle by stimulating lipolysis and the use of fatty acids. In Europe there is still a lack of cardiac rehabilitation programmes in hospitals, therefore, this study aims to demonstrate the advantages of implementing home-based exercise programmes, as well as, their effects on cardiovascular prevention. This study analyzed the effects of a home-based exercise programme, in patients with coronary artery disease (myocardial infarction for 1 year), in body composition, abdominal fat, lipid profile.

Methods: An ongoing randomized controlled trial with a sample of 20 participants were randomly allocated to intervention ($n = 10$) and control groups ($n = 10$). Intervention group performed a specific exercise programme during 8 weeks, consisting of ten home based exercises taking into account flexibility, muscle endurance and strength as well as cardiovascular endurance.

Skinfolds thickness were measure to calculate the percentage of total fat: Skinfolds used were suprailiac, abdominal horizontal and vertical. Body mass index calculation and blood tests for lipidic profile were performed.

Results: After eight weeks the intervention group decreased significantly the percentage of total fat ($p < 0.05$), the suprailiac skinfold ($p < 0.05$), the abdominal horizontal and vertical skinfold ($p < 0.05$) when compared with control group. In the intervention group it was observed after 8 weeks a significant decrease in body mass index, LDL-cholesterol and triglycerides.

Conclusions: Home-based exercise programme influenced body composition, abdominal fat and lipid profile. These results highlight the importance of implementing home based exercises that are easy and cheap to implement in cardiac patients, in order to promote health and reduce cardiovascular risk factors.