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ENDURANCE EXERCISE MAINTAINS BENEFITS ACHIEVED DURING A RANDOMIZED 12- WEEK EXERCISE INTERVENTION:12 MONTH FOLLOW-UP OF NOWASTEP STUDY

Mika Venojärvi[1],Niko Wasenius[2], Sirpa Manderoos[2], Olli J. Heinonen[3], Miika Hernelahti[3], Harri Lindholm[4], Jukka Surakka[5], Jaana Lindström [6], Sirkka Aunola [6], Mustafa Atalay[1], Johan G. Eriksson[2]

[1]University of Eastern Finland, Kuopio, Finland,
[2]University of Helsinki, Helsinki, Finland,
[3]Paavo Nurmi Centre & Physical Acitity and Health, University of Turku, Turku, Finland,
[4]Finnish Institute of Occupational Health, Helsinki, Finland,
[5]Arcada, Helsinki, Finland,
[6]National Institute for Health and Welfare, Helsinki and Turku, Finland.
E-mail: mikav@uef.fi,

Objectives

We studied long term effects of a 12 weeks randomized controlled exercise intervention on blood pressure, glucose and lipid metabolism in middle aged men with impaired glucose regulation (IGR) 12 months after the original intervention.

Methods

Overweight and obese men with IGR (n = 144) aged 40–65 years were studied at baseline and at one year after completing 12 weeks of a randomized controlled exercise intervention. At baseline the subjects were randomized to one of the following groups: a control group (C), a Nordic walking group (NW), or a resistance training group (RT). Follow up measurements were conducted 12 months after the end of intervention period (n=103).

Results

Total and LDL cholesterol concentrations decreased independently of weight loss in NW compared to other groups (p= 0.001). In NW also body composition, Fatty liver index, glucose metabolism, and systolic blood pressure (SP) improved (p=0.001). The decrease of SP was not associated with changes in weight loss in NW (p=0.150).

Conclusions

Long term effects were most beneficial among the participants in the NW group who did endurance type of exercise several days a week and daily physical activities during follow up period.