The relationship between women physical fitness and obesity and the severity of CAD

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Abstract
Background: Ischemic heart disease is the most prevalent cause of mortality in women and change in lifestyle including better physical fitness could control this condition.

Objective: To determine the relationship between physical fitness and obesity in women with coronary involvement.

Methods: In this cross-sectional study, 113 women aged 40-60 with stable angina, were included. Demographic details and past medical history (hypertension, diabetes, and hyperlipidemia) were collected using a questionnaire. Also, the Duke Activity Scale questionnaire (including 12 questions) was completed for each patient. Later, a coronary angiography using Seldinger method was performed and the extent score determined. The body mass index was also calculated. Data were evaluated using SPSS/12, t-student test, and the correlation and regression analysis.

Findings: The mean age of the participants, and the Duke Score were 50.18±8.71 years, 5.85±5.50 and 22.35±14.75, respectively. The coronary involvement score in women with diabetes, hyperlipidemia, and hypertension was higher than those without such complications (P<0.05).

However, the activity scale was shown to have insignificant difference. In addition, there were significant differences between the scale of physical fitness and both the coronary score and the body mass index (P<0.0001, r=0.33) and (P<0.02, r=0.21), respectively. Nevertheless, no relationship between the obesity and coronary involvement was demonstrated (P>0.05).

Conclusion: According to our data, we must have more attention on physical fitness in women beside other change in lifestyle.

Keywords: Angina Pectoris, Physical Fitness, Coronary Artery, Obesity, Women