

Introduction:

Polycystic ovary syndrome (PCOS) is the most common endocrinopathy in women and the most important cause of infertility due to anovulation. About %70 of women with PCOS are obese or overweight, and many are characterized by abdominal obesity, which contributes to the clinical and biochemical expression. Lifestyle intervention is regarded as first-line therapy in this syndrome. So according to COVID-19 Pandemic, the aim of this study was to evaluate the effect of 3 months of home-based aerobic exercise and low-calorie standard diet on body composition of overweight and obese women with polycystic ovary syndrome.

Methods:

The method of this study was quasi-experimental with pre-test post-test design. 20 women with PCOS with age of 27.9±2.5 years, weight 81.36±8.05 kg and body mass index 30.3±1.97 kg /m² referred to Arash Hospital, was selected and randomly divided into 2 groups (n=10). Anthropometric and body composition parameters were measured before and After 3 months. The home-based aerobic exercise program consisted of 30 minutes in 5 days a week with 70 to 85% HRmax. Also, the low-calorie diet (about 1200 to 1500 kcal) was prescribed based on the individual characteristics. ANCOVA test was used to statistic analysis (P≤0.05).

References:

1. Fawcett K, Martinez A, Crimmins M, Sims C, Børsheim E, Andres A . Effect of a dietary and exercise intervention in women with overweight and obesity undergoing fertility treatments: protocol for a randomized controlled trial. BMC nutrition. 2021;7(1):1-12. 2. Moini A, Arabipoor A, Hemat M, Ahmadi J, Salman-Yazdi R, Zolfaghari Z. The effect of weight loss program on serum anti-Müllerian hormone level in obese and overweight infertile women with polycystic ovary syndrome. Gynecological Endocrinology. 2019;35(2):119-23.

The effect of 3 months of home-based exercise and low-calorie diet on body composition of overweight and obese women with polycystic ovary syndrome during the COVID-19 Pandemic Zahra Mosadegh Neishabouri, Farhad Rahmani-nia, Ashraf Moini, Azadeh Mottaghi

سيزدهمين همايش بين المللي علوم ورزشي

فعالیت بدنی و عصر مدرن- ۱۶ الی ۱۸ اسفندماه ۱۴۰۰

	Table 1: ANCOVA test for comparison of post-test between groups			
Kesult:	parameter	F	Ρ	η²
	Weight	221.268	*<0.001	0.929
	Body Mass Index	178.113	*<0.001	0.913
	Waist Circumference	480.145	*<0.001	0.966
	Body Fat Percentage	170.659	*<0.001	0.864
	Body Fat Mass	174.397	*<0.001	0.911
	Fat Free Mass	28.383	*<0.001	0.625
	Visceral Fat Area	199.225	*<0.001	0.921
	*P<0.05			

Discussion & Conclusion:

After 3 months in experimental group a significant decrease in weight, body mass index, waist circumference, were along with significant decrease in body fat percentage, body fat mass, fat free mass, and visceral fat area (P<0.001). It seems that a 3 months of home-based aerobic exercise and low-calorie standard diet can improve anthropometric and body composition parameters of overweight and obese women with polycystic ovary syndrome. Therefore, it is recommended that these interventions be prescribed before or simultaneously with assisted reproductive technology (ART).



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