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Comparison effect of two type aerobic exercises on variation LDL, HDL and skin fold in non-athlete students

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Abstract: For comparison effect of tow type aerobic exercises on alternations of LDL-c, HDL-c a skin fold; 30 male students selection randomly in Islamic Azad University – Dezful branch. Students division in tow groups. 1) Age $\overline{M}$:22.7, Weigh $\overline{M}$:66.3, Height $\overline{M}$:174.7; exercise program inclusive :15 min warm up, 25 min running (5 set : slow running with 1 min walking) with 65-85 percent of MHA and 10min cool down. 2) Age $\overline{M}$: 23.8, Weigh $\overline{M}$:78.4, Height $\overline{M}$: 175.2; exercise plan include: Circle exercise (8 sections) with 65-85 percent if MHR and 10 min cool down. Measurement included percent of body fat and blood samples that tacked before exercise and after it. T-student was profit to analyze data and maximal level of significance for this study was set $p \leq 0.05$. The results of this research observed that one set periodic running don't significant effect on HDL-c. But did not significant LDL-c and sub skin fold. The results shown that one set aerobic exercise has more influence besides periodic running on Plasma Lipids.

Key words: aerobic exercise, Low density Lipoprotein (LDL-c), High density Lipoprotein (HDL-c), skin fold**.**

INTRODUCTION

Today, with industrialization and replacement behaviors Zndgyha car instead of motor behavior and changing palate of natural foods and more plant foods high in fat and high percentage Klstrl suitable conditions to individuals suffering society of cardiovascular disease has created. Many research done in this area that has shown how the metabolism, the amount and type of lipids, particularly blood lipoproteins and incidence of cardiovascular disease increases play a major role.

Also, if you save too much fat in the body to get, dangerous factor for these diseases are considered, while stored body fat endanger the environment for heart disease - does not show vascular. Therefore the direct relationship of fat with myocardial infarction, a set level of blood lipids are considered important factors in health and no doubt used to sport activities suitable to play an important role in setting the level of blood lipids is playing.

Research Methodology:

Method used in this study is descriptive and inferential. In this study the test before and after the test has been used for raw data to obtain blood samples and body fat percentage of people before and after one session of physical activity were studied. Statistical community to all students in this study, male non-athletes 20 to 27 years, Islamic Azad University of Dezful 85-84 in the first semester studying were the number of people they were formed is 10768. Statistical value of this research sample was 30 students and two male non-athletes group 15 as a completely random person from among the students in the past two years have not sport any regular activity were selected.

The first group of two Series aerobic activity in one session and a session with the second group aerobic exercise was circular. The first method measured the Profile tab Zmvdnyha profile was recorded after the weight, height and body fat percent respectively Seca scale model made in Germany, and Kalypr meter tape (type Lafayt) were measured. Then before the first blood sampling test stage when approximately 12 hours as were fasting, in the same condition was done. After 50 minutes of physical activity groups especially fat percentage (using the formula Vsyry Jackson), and blood samples Zmvdnyha stage test and test of LDL-c and HDL-c was performed with speed and was transferred to the laboratory. The first group activity program for selected heating for 15 minutes, 25 minutes, two 4 Series 5 is the minute from every 4 minutes, 1 minute walking heart rate of people 65 to 85 percent max heart rate (MHR) was. Finally, 10 minutes and cool. Program activities and the second group 15 minutes after the heating and 25 minutes doing exercises that involve circular 8 Station (long session, knee high, knee back, leg pair sides, fan, pump, fan front mount claw on foot) and 10 minutes to cool. Repeated practice on a 50 percent max (1-RM), 3 shift, 12 to 15 repeated interval of 15 seconds between each turn and was 5 seconds between each station.

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Research findings:

The results of this research in two groups as expressed in the table is. Table 1 and the profile includes information such as age, height and weight is Zmvdnyha. Table 2 Laboratory values of HDL-c in two-stage test before and after the test in both groups 1 and 2 shows. Table 3 demonstrates the values of laboratory tests in two stages before and after the test in both groups 1 and 2 is. Table 4 shows amounts of fat under the original two stage cutaneous pre-test and two test groups 1 and 2 is.

Table 1: testing

Total Zmvdnyha	Height (cm)	Weight (kg)	Age group (years)	Index / Group
15	174.7	66	22.7	Group 1 (two alternative)
15	175.2	68.4	23.8	Group 2 (circular)

Table 2: Mean and standard deviation of HDL in group 1 and 2 Pre-test and Post-test

Deviation Standard (S.D)	Mean	HDL	.Group
12.7	44.2	Pre-test	Group 1 (two alternative)
13.71	44.9	Post-test	
8.07	29.4	Pre-test	Group 2 (circular)
12.04	45.7	Post-test	

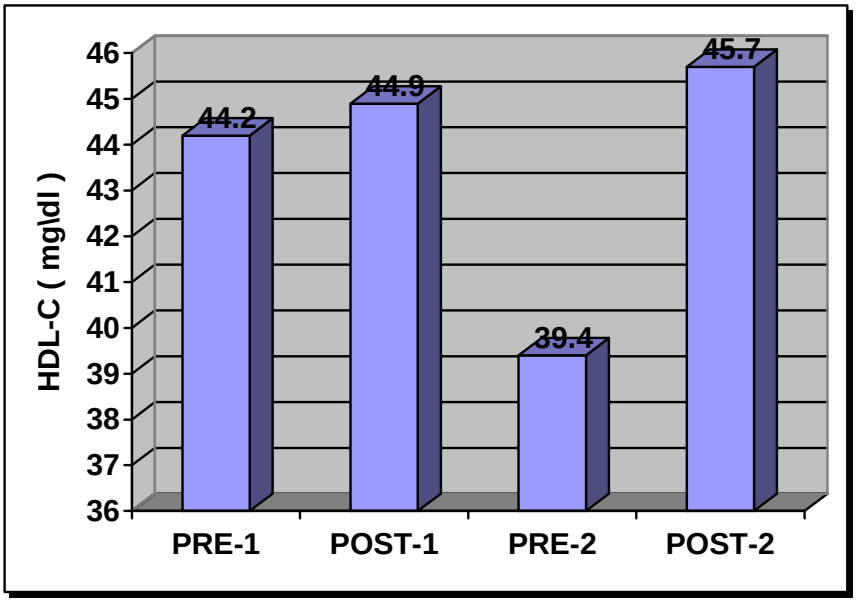

Fig. 1: Average HDL-C group 1 and 2 in two stages before the test and test

Table 3: Mean and standard deviation of group 1 and LDL and 2 Pre-test and Post-test

Deviation Standard (S.D)	Mean	LDL	.Group
34.38	117/6	Pre-test	Group 1 (two alternative)
35.3	118.7	Post-test	
87.42	125.7	Pre-test	Group 2 (circular)
99.7	122.6	Post-test	

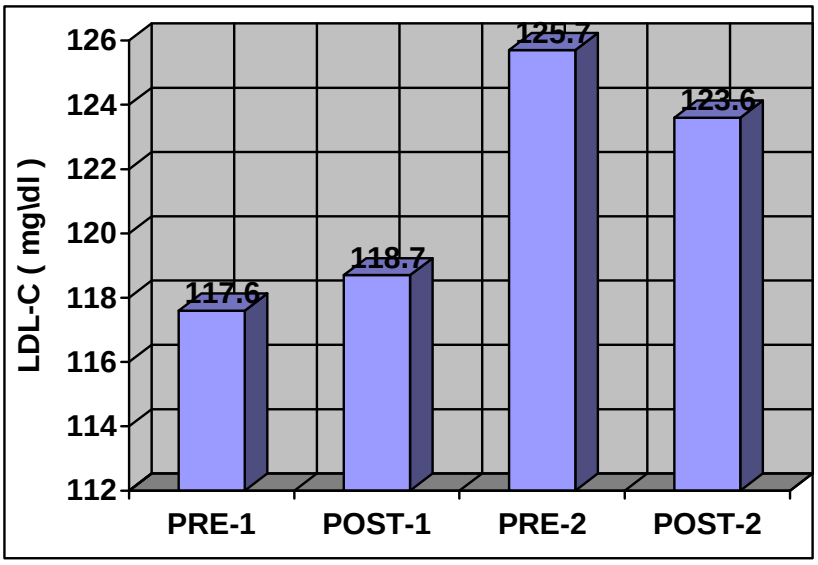

Fig. 2: average LDL-C group 1 and 2 in two stages before the test and test

Table 4: Mean and standard deviation percent fat hype groups 1 and 2 Pre-test and Post test

Deviation Standard (S.D)	Mean	Percent fat hype	.Group
34.30	116.4	Pre-test	Group 1 (two alternative)
35.6	118.1	Post-test	
86.27	124.4	Pre-test	Group 2 (circular)
99.7	122.8	Post-test	

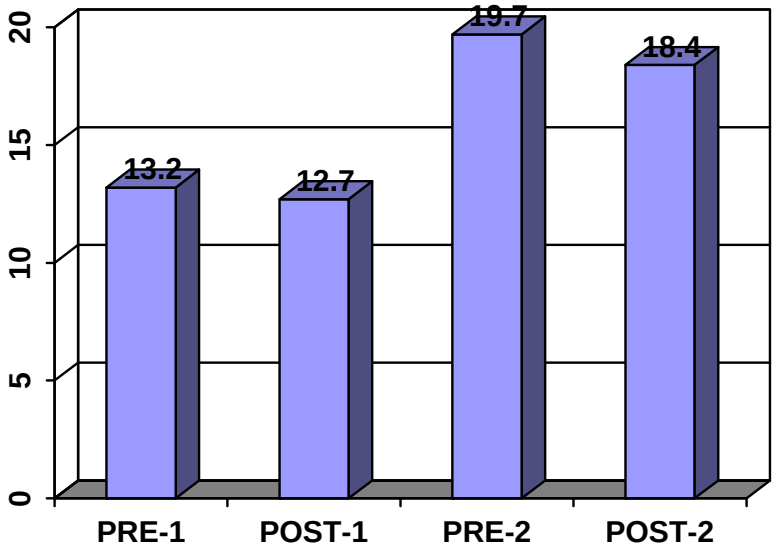

Fig. 3: Average percentage of fat under the hype for groups 1 and 2 in two stages before the test and test

Results of tests with the statistical method used, ie test (t) was as follows:

1 - Considering the increased plasma level of HDL-c in the test phase of each group, activity was observed that a two-session Series plasma HDL-c level in non-athletes no significant effect, but one session of activity level in HDL-circular c plasma non-athletes has significant effect. (5% P).

2 - Despite the increasing and decreasing plasma LDL-c in the test phase in both groups, was observed that none of the two activities and Series circular plasma LDL-c level in non-athletes do not have significant effect (5% P).

3 - Considering the reduction in cutaneous fat phase under test in both groups, was that any two activities a Jls·hay Series and the amount of fat under the circular cutaneous non-athletes do not have significant effect (5% P).

4 - between the amount of HDL-c, LDL-c and non-cutaneous fat athletes under a subsequent activity session and one session of two Series circular activity significant difference was observed. (5% P).

Conclusion:

1 - continuous activity increased blood volume and perform a session of physical activity decreased the volume is. Therefore stages Avlyh do sports activities with increasing blood pressure some water into the water between plasma and tissue capillary vessel some 20 percent increase in blood concentration during the first 10 minutes in sport, it has had. Therefore possible plasma volume changes, changes in both blood lipid concentrations and create HDL-c lipoproteins such changes are not even less. But sometimes count the minor increase in HDL-c has.

2 - should consider the following Mvyrg·hay with multiple fat tissues and nerves are Atvnvmyk. Therefore, all actions by their metabolic and hormonal factors and neural control is only one cause can not be increase or decrease a variable be mentioned.

In general the results of this research is that this article Icebox circular aerobic activity to activity more effect on the Series Two HDL-c, LDL-c and cutaneous lipids is under.

The end to be noted that the use of fat as energy varies with the intensity of exercise and low intensity activities like walking with activities circular, two-Series (even in one session) in strongly Lypvlyz Ed Ybvsyt environmental stimulation will . This can effect as a tenet of physical activity is beneficial.

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