

- ✓ Physical exercise: Performed in the first visit by the 15% of the women, increasing up to 50%; 60%; 65% and 67% in the next revisions.
- ✓ Cholesterol total: The average value decreases in the period of study (229,68; 220; 219,8; 218 and 215,4).
- ✓ HDL-cholesterol: The average value increases during the period of study (58,8; 62,2; 63,4; 64,4 and 65).
- ✓ LDL-cholesterol: The average value decreases progressively in the period of study (155,68; 138,9; 138; 135,7 and 133,9).
- ✓ Tryglicerics: In this case the average value oscillates (85; 83; 87; 86 and 91).

Conclusions: With these parameters assessed throughout the four year period, we can see that if the women use the information received, the cardiovascular risk decreases (Quetelet index, total cholesterol and LDL are reduced whereas HDL is increased). That would prove the effectiveness of the Health Education Programs and Prevention Programmes, although the efficiency is higher during the first year after the lectures.

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INFLUENCE OF HORMONAL REPLACEMENT THERAPY IN LIPID PEROXIDATION LEVELS OF POSTMENOPAUSAL WOMEN WITH DIFFERENT CARDIOVASCULAR CAPACITY

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Objective: It has been suggested that exercise has a positive impact on the prevention and progression of cardiovascular disease (CVD). One of the main mechanisms is through the modification of lipoprotein levels and the risk of its oxidation, especially LDL lipoproteins. After menopause, women experience an increased incidence of cardiovascular disease. In contrast, women receiving hormonal replacement therapy (HRT) seem to be protected. The aim of this study was to infer how HRT affect lipid peroxidation levels in postmenopausal women with different levels of aerobic fitness.

Design & Method: Sixty four women participate in this study, 32 of them receive HRT (group with HRT – GWHRT) (average age=55.9 years, average weight=66.9 kg and average high=156.0 cm) and the remained 32 women didn't receive HRT (group without HRT – GWOHRT) (average age=61.0 years, average weight=67.6 kg and average high=154.3 cm). Total cholesterol (mg·dL⁻¹), HDL-cholesterol (mg·dL⁻¹), LDL-cholesterol (mg·dL⁻¹) and triglycerides levels (mg·dL⁻¹) have been analyzed in serum obtained from a blood sample collected after 8 hours of fasting, and measured in Dr. Lange LP20 according to the specific manufacturer instructions. Serum MDA concentration (ng·L⁻¹) was determined by spectrophotometric method. Aerobic capacity (VO₂max·ml·kg⁻¹·min⁻¹) was assessed according to an adaptation of Bruce protocol. Differences between groups were tested through Student t-test. A Spearman correlation was performed in order to test variables associations. Significance level was established at 5%.

Results: Our results have found differences between groups in age (t=3.018; p<0.01), in VO₂max (t=-3.774; p<0.01) and in serum MDA concentration (t=6.750; p<0.01). The GWHRT were younger, had a higher VO₂max (31.38 for GWHRT and 26.19 for GWOHRT), and had lower levels of serum MDA concentration (0.29 for GWHRT and 0.73 for GWOHRT) comparatively with those women from the GWOHRT. However, our results failed to find any differences between groups regarding serum triglycerides, total cholesterol, HDL-cholesterol, LDL-cholesterol or BMI. In this study, serum MDA concentration didn't correlate with higher levels of lipid profile, as we might have expected, but correlate inversely with HRT (r=-.726, p=.00) and with VO₂max (r=-.287, p=.02).

Conclusion: Our results suggest that HRT should exert an antioxidant protective effect against lipid peroxidation, as well as exercise perhaps through the stimulation of antioxidant capacity.

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