



Serum serotonin response to aerobic exercise versus *phoenix*

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Abstract : Back ground and Purpose: Aerobic training and *Phoenix* (dates) for elderly subjects with mild depression can alter the level of serum serotonin either by increasing its synthesis or increasing its uptake by the serotonergic receptors. This alteration of the serum serotonin level improves the subject's depression symptoms on the geriatric depression scale with a return to the normal scores. The effects of 24 weeks aerobic exercise and date consumption on the serum serotonin level and on subjects' score on the geriatric depression scale were studied. **Patients and methodology:** one hundred men and women with mild depression aged 60-70 years old referred from the psychiatric out clinic of Elobour Medical Center were included. They were randomly assigned into two equal groups, Group (I) participated in a specialized program of date consumption in form of eating three dates daily one before each meal by one hour, group (II) participated in a program of aerobic exercise in form of walking on a computerized treadmill for about twenty minutes (active phase), 5-10 min warming up and 5-10 min cooling down three times per week with a target heart rate of 60-75% of MHR. The study was conducted at PT department of Elobour medical centre one of the Health ministry medical centres. The serum serotonin levels and subjects scores on the geriatric depression scale were measured for all subjects in the two groups at the beginning of the study and after twenty four weeks.

The results: The results of this study revealed a significant increase in the serum serotonin level in Group (I) with a percent of improvement of 75.77%, a significant decrease of the serum serotonin level in group (II) with a percent of improvement of 38.9% and a significant decrease (improvement) of the patients score on the geriatric depression scale in both groups with no significant difference.

Conclusion: It can be concluded that both aerobic exercise and *Phoenix* can produce a significant improvement for patients with mild depression.

Key words: serum serotonin, aerobic exercise, *Phoenix*.