

LOW-CALORIE DIET WITH SUPPLEMENTATION OF PHYTOEXTRACTS FOR THE TREATMENT OF OVERWEIGHT

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Introduction

The aim of this paper is that of testing the usefulness of using supplementation with phytoextracts with tonic and adaptogenic properties in the context of a diet with a slightly low content of calories.

Methods

The inclusion criteria were the following: age ranging from 25 to 75, BMI from 25 to 40, willingness to lose weight and no ongoing pathologies. The exclusion criteria applied were the use of medicines in the previous 2 months, pregnancy or lactation, use of slimming diets or of medicines for weight loss in the previous 5 months. 53 subjects were recruited, 2 of whom dropped out before randomization and 7 during the study. 44 subjects completed the experiment (120 days) successfully. The distribution of nutrients (proteins, carbohydrates and fats) in terms of percentages in relation to the overall calorie intake (1500 Kcal/die) was 20, 50 and 30 respectively. The diet also involved the administration of three mixes of phytoextracts aimed at mitigating the side-effects caused by the depuration process set in motion: depurative (*Durvillea antarctica*, Black Horseradish, Mint, Liquorice, Artichoke and *Equisetum*), diuretic (*Equisetum*, *Asparagus*, Birch, Cypress, Spear plant and Maize) and tonic (*Eleuterococcus*, *Miura puama*, Ginseng, Guaranà, Coffee and Anise).

Results

The data obtained were analyzed with the t-test, with the significance threshold at $p < 0.05$. The reduction in weight and in BMI was 12%; the basal metabolic rate (BMR) dropped to 7%. As far as the circumferences are concerned, it was observed that the waist circumference was reduced by 13%, the hip circumference by 10% while the thigh circumference was reduced by 12%. Regarding the blood chemical assessment, the only significant variation was the reduction in the values of triglyceride levels. However, it is worth pointing out that there was also a reduction in average glycemia (11%) and total cholesterolemia (12%). Kidney and liver functions showed no variation and there was a 3% increase in HDL cholesterol.

Conclusions

The results suggest that the effects of a hyper protein diet with a slightly low content in calories might be enhanced by the synergic action of phytoextracts with tonic properties and that it might also improve the parameters related to body composition if followed for a sufficiently long period of time.