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Summary: In this modern world, the obesity is very important health problem, because it enriches the risk factors for comorbidity in human beings, at first for cardiovascular and central nervous system, but for the others, also. The number of obese persons has increasing incidence as well as the prevalence all over the world in different ages. The methods suggested in regulation the metabolism and the body mass reduction are numerous, very often adapted to the individual condition of someone. There are many medicaments, recommended in obese persons treating and maintaining the metabolic balance, but only few of them are successful.

After clinical examination, 49 persons of both sexes, average age of 41.5 y, have been followed.

Before the therapy, which was applied, body mass index (BMI), was 37.75 ± 0.79 kg/m² ($X \pm SE$, range 31-40). But, during six month period, both therapy and the diet containing 1000 Cal/per day BMI decreased (26.22 ± 0.66 ($p < 0.05$), range: 25-33 kg/m², that means the reduction of 30.54%), without correlation between the persons' ages and their BMI (r_{xy} : 0.21). The quality of glucoregulation as well as the plasma insulin and C peptide levels became better after therapy.

Total cholesterol serum level serum (7.52 mM/L ± 0.42 ($X \pm SE$; range: 5.86-12.2mM/L), decreased after orlistat (6.20 mM/L ± 0.22 (range: 5.26-7.60), without antilipemic medicaments. Low density cholesterols (4.66 ± 0.38 ($X \pm SE$; range: 2.88-6.42), diminished after therapy to 3.26 ± 0.20 (range: 2.6-4.36).

We found that 24 months of treatment with the lipase inhibitor orlistat reduces weight in abdominally obese subjects, and can improve glucose-insulin homeostasis. The whole clinical effect with orlistat in doses of 120 mg twice day has beneficial effect.

Key words: obesity, insulin, plasma lipids level.