Background

This article evaluates the role of gene polymorphism Gln27Glu β2-adrenergic receptors in forming violations of carbohydrate and lipid metabolism in patients with coronary heart disease and obesity.

Materials and Methods

A comprehensive survey of 222 patients with coronary heart disease and obesity. The study determined the carbohydrate, lipid metabolism and gene allelic polymorphism Gln27Glu β2-adrenergic receptors.

Results

Combined course of coronary heart disease and obesity is characterized by hyperinsulinemia and insulin resistance on the background of normoglycemia that is associated with the G/G genotype polymorphism gene Gln27Glu β2-adrenergic receptors. G/G genotype polymorphism gene Gln27Glu β2-adrenergic receptors in patients with coronary heart disease associated with increased body mass index and triglyceride levels.

Conclusions

In our study, we provided evidence of the influence of genotype G/G polymorphism of the gene Gln27Glu β2-adrenergic receptors in patients with coronary heart disease and obesity on the state of carbohydrate and lipid metabolism. Homozygotes (G/G) had elevated insulin levels, insulin resistance, body mass index and triglycerides.