Results. Clinically 20 % of DM 1 and 17.8 % of DM 2 patients had palpitation, resting tachycardia, 10 % of DM 1 and 11.1 % of DM 2 patients felt dyspnea in physical exertions, 10 % of DM 1 and 15 % of DM 2 patients had weakness, dizziness, visual impairment from a lying to a standing posture (orthostatic hypotension). Clinical signs of CVD were defined in all firstly diagnosed DM 2 patients and in half of DM 1 patients. After providing 5 examination tests for diagnosis of CAN we received next results: Resting tachycardia — 20 % DM 1 and 2, Standing tests for orthostatic hypotension — 30 % DM 1 and 33 % DM 2, Valsalva maneuver — 30 % DM 1 and 35.5 % DM 2, Heart rate response to deep breathing — 20 % DM 1 and 17.8 % DM 2, Diastolic blood pressure response to sustained handgrip — 37 % DM 1 and 44.4 % DM 2.

Absence of CAN, according to proposed score, was defined in those patients without clinical features of cardiovascular problems — 43.3 % of patients with DM 1 and 40 % of patients with DM 2. Near half of all patients were diagnosed with early and definite CAN (23.3 % and 23.3 % relatively in patients with DM 1), at that higher prevalence of definite CAN was shown in DM 2 patients (17.8 % — early CAN, 28.9 % — definite CAN). Severe CAN was confirmed more often in DM 2 patients as well (13.3 %).

It was seen, that history of DM 1 and DM 2 more than 10 years strongly correlated with high prevalence of CAN. But in cases of DM 1, 76.5 % of patients suffering from disease longer than 10 years had clinically diagnosed CAN and only 11.8 % of those had the disease shorter than 10 years. Besides, 55.6 % of patients with DM 2, who had CAN, suffered from DM longer than 10 years, and 25.9 % had this disease less than 10 years. All firstly diagnosed DM 2 patients were characterized with CAN presence, while half of the same DM 1 patients had not CAN in period of observation. Nobody of DM 2 patients with duration of the disease longer than 10 years was free of CAN sings.

Conclusions:

1. Near 60 % of investigated patients with diabetes mellitus type 1 and 2 were suffering from cardiovascular autonomic neuropathy, affirming, that CAN becomes a very common diabetic complication. Definite and severe CAN was closer associated with diabetes mellitus type 2 and could be explained by long undiagnosed period of the disease in those patients.

2. Development and progression of CAN is strongly correlated with prolongation of diabetes mellitus. However, presence of diabetes mellitus type 1 longer than 10 years is associated with CAN more often, than in cases of shorter disease. In patients with history of diabetes mellitus type 2 for less than 10 years, CAN was diagnosed more often than in the same category of patients with diabetes mellitus type 1. All newly diagnosed patients with diabetes mellitus type 2 showed presence of CAN.

3. Careful and easy revealing of CAN with usage of proposed standard tests could help in proper diagnosis of diabetic complications for the effective treatment and prevention of the adverse cardiovascular and cerebrovascular events in patients with diabetes mellitus type 1 and 2.

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SERT-GENE POLYMORPHISM IN THE PATIENTS WITH THYROTOXICOSIS AND IRRITABLE BOWEL SYNDROME

Many studies have explored the role of genetic factors in the onset and progression of irritable bowel syndrome. In the study of familial inheritance irritable bowel syndrome, in 33 % of patients identified genetic predisposition to the disease, whereas in the general population, it was only 2 %. In recent years, increasingly studied polymorphisms of candidate genes associated with irritable bowel syndrome. It is known that in the regulation of intestinal motility and secretion are involved various neural and humoral mediators plays a particularly important neurotransmitter serotonin. Gene SERT, encodes a protein-synaptic serotonin transporter with a gap in the presynaptic membrane localized on chromosome 17 in the region of 17q11.2-q1. Depending on the type of gene polymorphism, L (long allele) and S (short allele) form 3 types of genotype: LL (long, long), LS (long-short) and SS (short-short).

The aim of the study was to investigate SERT-gene polymorphism in patients with thyrotoxicosis and irritable bowel syndrome.

Material and methods. We investigated 38 women with diffuse toxic goiter and symptoms of irritable bowel syndrome. All of patients were examined for gene SERT, encoding the serotonin transporter protein. By the nature of violations of the digestive organs of patients divided into 3 groups. The first group included 12 patients with diffuse toxic goiter and with irritable bowel syndrome with diarrhea-type, the second group — 12 patients with constipation. The third group consisted of 14 people with thyrotoxicosis without violations of the digestive system.

Results. In the first group of patients, we found all types of polymorphism: 67 % had a homozygous carrier LL alleles SERT, 25 % — SS-genotype, and only 1 patient (8 %) were heterozygous carriers of LS. Individuals of the second group tended to be short-allele carriers, in particular, 75 % of patients were heterozygous of LS, whereas 25 % had SS-genotype. In the analysis of a group of individuals without violating the intestinal function number of patients with SS-genotype (79 %) was significantly dominated by the number of LS-heterozygotes (21 %).

Conclusion. It was found that the type of intestinal dysfunction in diffuse toxic goiter is associated with gene polymorphism SERT, which raises the need for correction of medical tactics in these patients.