

**THE PSYCHOEMOTIONAL STATUS OF ELDERLY PATIENTS WITH HYPERTENSION AND DIABETES MELLITUS**

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Abstract

Depression is an important general medical problem faced not only by psychiatrists, but also by doctors of other specialties, primarily therapists, neurologists, and cardiologists. This is due to the fact that manifestations of depression due to the severity of somatovegetative symptoms are often associated by patients not with a mental disorder, but with various somatic diseases. The frequency of depressive spectrum disorders turned out to be comparable with such a common disease in the Uzbek population as arterial hypertension. Materials and methods of research: The study was conducted on the basis of one of the city polyclinics. 134 patients with a previously diagnosed hypertension of stage III, grade 1-2, risk 4, concomitant type 2 diabetes mellitus, non-insulin dependent were studied (250 invitations were sent out, the response was 53.6% - 134 patients).

Results and discussion: The average age of the patients was 67.9 ± 4.6 years, the duration of the disease was on average 9.9 ± 3.4 years. There were 63 men (47.0%) and 71 women (53.0%) among the surveyed. According to social status, patients were distributed: unemployed (pensioners) – 81.3%, employed – 18.7%. When assessing family status, 73.9% were single, and 26.1% live in families. The stress factor in the family is noted by more than 30%. Among the working population, 55.7% of patients have a work-related stress factor. Conclusions: Anxiety conditions were detected in 79% of the elderly, depressive – 68.7%, the frequency of TDS in patients increases with age. Female persons are more prone to psychoemotional disorders. The detection of TDS in patients with hypertension and concomitant type 2 diabetes mellitus is a prognostically unfavorable sign and a risk factor for the progression of the studied diseases.

The severity of diabetic retinopathy correlates with increased levels of depression.

Keywords: arterial hypertension, diabetes mellitus, psychoemotional status.

Introduction

The detection of depression differed in patients with different marital status, educational level, income and social status. In patients with cardiovascular diseases, depression is diagnosed in more than half of cases. A meta-analysis of 42 studies showed that the prevalence of depression was twice as high among adults with diabetes compared to similar individuals without diabetes. Some studies have also shown a link between depression and the macro- and microvascular complications of diabetes mellitus that develop over the next 5 years. . In general, 80% of such patients die due to cardiovascular diseases: 65% - from acquired heart pathologies, 15% — from cerebral circulatory disorders. Among patients with arterial hypertension, the prevalence of DM is 2-2.5 times higher than among people without high blood pressure (BP). In addition, the risk of diabetes over the next 5 years in patients with hypertension is 2.5 times higher, than in the general



population. The probability of developing hypertension on the background of diabetes increases depending on

the type of diabetes, the age and ethnicity of the patient, the presence of obesity and other components of the metabolic syndrome. As a result, more than 80%

of patients with type II diabetes suffer from elevated blood pressure. The course of arterial hypertension in patients with DM is characterized by a number of features. First of all, this is a high pulse pressure, which reflects an increase in the stiffness of medium - and large-caliber arteries and is a predictor of a poor prognosis. Increased pulse pressure 10 mmHg correlates with an increase in mortality due to cardiovascular diseases by 20%. The clinical and social significance of this increases as the prevalence of type 2 diabetes increases. Further research is needed to clarify the main mechanisms of this association and develop measures to reduce the risk of developing complications of diabetes mellitus in patients with concomitant depression. While the relationship between depression and the development of micro- and macrovascular complications of diabetes mellitus has been studied, there is not enough information about the relationship between depression and diabetic retinopathy, although diabetic retinopathy is one of the most common complications in diabetic patients. The aim of the work was to assess the severity and relationship of anxiety-depressive syndrome (TDS) and clinical and laboratory parameters in elderly patients with hypertension and concomitant type 2 diabetes mellitus living in a therapeutic urban area.

MATERIALS AND METHODS OF RESEARCH

The study was conducted on the basis of one of the city polyclinics. 134 patients with a previously diagnosed hypertension of stage III, grade 1-2, risk 4, concomitant type 2 diabetes mellitus, non-insulin dependent were studied (250 invitations were sent out, the response was 53.6% - 134 patients).

According to the presence of depression, the patients were divided into two groups, the first consisted of 92 patients (68.7%) with depression, the second – 42 (31.3%) people without depression.

The following psychometric scales were used: Beck, Spielberger-Khanin, alexithymia.

THE RESULTS AND THEIR DISCUSSION

The average age of the patients was 67.9 ± 4.6 years, the duration of the disease was on average 9.9 ± 3.4 years. There were 63 men (47.0%) and 71 women (53.0%) among the surveyed. According to social status, patients were distributed: unemployed (pensioners) – 81.3%, employed – 18.7%. When assessing family status, 73.9% were single, and 26.1% live in families. The stress factor in the family is noted by more than 30%. Among the working population, 55.7% of patients have a work-related stress factor. When examining the fundus, diabetic retinopathy was detected in all. In addition to signs of depression, the examined patients had a pronounced anxiety factor (79%), both situational and personal, which reflected tension, anxiety, nervousness, a stable tendency to perceive a large range of situations as threatening, to respond to such situations with anxiety. In these patients, the level of anxiety was: situational 47.4 ± 6.4 , personal 51.3 ± 4.5 in the first group, 31.5 ± 5.4 and 40.8 ± 5.0 , respectively, in the second group, which manifested itself as a violation of attention, sometimes a violation of fine coordination. Very high personal anxiety is directly correlated with the presence of neurotic conflict, with emotional and neurotic breakdowns and psychosomatic diseases. Alexithymia reflects the features of a disorder of communicative



processes, in patients the factor of alexithymia was 77.5 ± 2.4 in the first group, 61.5 ± 1.9 in the second group, which manifested itself in the following signs: difficulty in describing somatic sensations, difficulties in communicating with patients, patients' speech is poor in describing their condition and complaints, very low emotionality, inability to express your complaints. All this contributes to the formation of depressive-hypochondriac symptoms. Most of the examined patients are extremely limited in their desires, fantasies, if they manifest themselves, they are dreary, unrealistic in nature. A number of studies, confirm the prognostically unfavorable role of alexithymia in predicting cardiovascular diseases.

The first group was dominated by overweight patients of $32.6 \pm 2.0 \text{ kg/m}^2$ – 56.3% of patients. In the second group – with a normal body weight of $24.3 \pm 1.8 \text{ kg/m}^2$ – 53.2% of patients. A correlation was found between body mass index and psychoemotional disorders: the higher the body mass index, the higher the level of situational and personal anxiety ($r=0.4$; $p<0.05$).

Stress and emotional distress can lead to decompensation of cardiovascular pathology. Perhaps the mechanism of this connection is an increase in the frequency of heart contractions and blood pressure. The study found that patients with an increase in psychoemotional disorders had an increase in blood pressure: the higher the level of situational anxiety, the greater the maximum systolic blood pressure of $182.5 \pm 6.3 \text{ mmHg}$, $r=0.3$, $p<0.05$. Correlation analysis revealed a relationship between systolic blood pressure and depression ($r=0.6$; $p<0.05$), between pulse rate and anxiety level ($r=0.4$; $p<0.05$).

Glucose levels in the group of patients with psychoemotional disorders tended to be higher than in the group without depression: $12.7 \pm 3.9 \text{ mmol/l}$ as opposed to $6.2 \pm 1.2 \text{ mmol/l}$, $p<0.05$. The lipid profile in the second group is closer to normal than in the first. There was a significant correlation in the first group between the level of cholesterol $5.5 \pm 0.3 \text{ mmol/l}$, HDL $1.2 \pm 0.1 \text{ mmol/l}$, LDL $3.2 \pm 0.2 \text{ mmol/l}$ and affective disorders, $r=0.4$; $p<0.05$.

When assessing the degree of development of diabetic retinopathy, it was found that proliferative retinopathy (stage 3) prevails in the first group ($r=0.7$; $p<0.05$), whereas non-proliferative and preproliferative (stages 1 and 2) prevail in the second group. To date, there has been a divergence of opinion in the literature on the relationship between poor glycemic control and depression. In some studies, there was no correlation between depression and the duration of diabetes and glycemic control. Diabetes was the only significant factor determining the presence of depression after comparison with other indicators.

CONCLUSIONS

Anxiety conditions were detected in 79% of the elderly, depressive – 68.7%, the frequency of TDS in patients increases with age.

Female persons are more prone to psychoemotional disorders.

The detection of TDS in patients with hypertension and concomitant type 2 diabetes mellitus is a prognostically unfavorable sign and a risk factor for the progression of the studied diseases.

The severity of diabetic retinopathy correlates with increased levels of depression.

It is necessary to introduce screening methods for the detection of anxiety and depressive disorders in patients with hypertension and diabetes mellitus, including the use of psychometric scales. The appointment of combination therapy with the inclusion of antidepressants will help slow the progression of the studied diseases and improve the quality of life.

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