



# **CLINICAL MANIFESTATIONS AND DIAGNOSTICS OF VASCULAR DISORDERS IN PATIENTS WITH DIABETIC POLYNEUROPATHY AND ARTERIAL HYPERTENSION**

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## **Abstract:**

Diabetic neuropathy – a complex of pathological changes on the part of various departments and the structural nervous system, characteristic of patient with diabetes. The examination of is patients- 60 patients with type 2 diabetes at the stage of decompensation. For quantitative characteristics pronounced subjective and objective violations were used.

**Keywords:** Diabetes mellitus, diabetic neuropathy, vascular disorders, anticoagulants.

**INTRODUCTION.** The defeat of the nervous system in diabetes mellitus (DM) is one of the important problems of modern medicine. This is due to the fact that the number of patients with DM is steadily increasing. According to statistics by 2013 In the Republic of Uzbekistan, 18,813 patients with DM were identified (62.2 per 100,000 population). 58.1% of them are women, 42% are men. In the Samarkand region, these indicators amounted to 2211 patients. The following complications were found in patients with DM: polyneuropathy in 42.1% of the examined patients, Retinopathy - in 34.1% of patients, encephalopathy - in 16.5%, "Diabetic foot" - in 5.8% and amputation – in 0.1%, nephropathy - in 12.9% of the examined patients. The increase in the frequency of neurological disorders in DM, to a certain extent, is associated with an increase in the life expectancy of patients, thanks to modern methods of treatment. The earliest and most frequent complication of diabetes mellitus is diabetic polyneuropathy. Interest in diabetic polyneuropathy is steadily growing, since its development has a significant impact on the quality of life, ability to work and social activity of patients, increasing the overall mortality in DM by 2-3 times.

**THE PURPOSE OF THE STUDY.** The aim of the work was to study the clinical manifestations and diagnostic criteria of vascular disorders in patients with diabetic polyneuropathy and arterial hypertension.

**MATERIALS AND METHODS OF RESEARCH.** The total number of examined patients was 60 patients with type 2 diabetes. The first group of 35 patients received perindopril at a dosage of 4 mg per day for three

months. The second group of 25 patients received amlodipine at a dosage of 5 mg per day for three months from the start of treatment. The exclusion criteria were patients receiving anticoagulants of direct indirect action, antiplatelet agents, patients with diabetes on insulin therapy, patients with concomitant chronic diseases of the liver, lung kidneys and oncological diseases.

The scale includes a study of four neuropathic symptoms: numbness, burning, paresthesia, pain in the extremities. The maximum number of points on the scale is 14.64 (all symptoms are expressed as much as possible). The maximum value of the indicator of the scale of neurological symptoms is 9 points. With moderate polyneuropathy, the scale index is 3-4 points, expressed 5-6, severe-7-9 points.

**RESULTS AND THEIR DISCUSSIONS.** When analyzing complaints and neurological examination data among the examined patients, pain in the hands and feet was noted in 24.4.2% in the group and 18.7% in the second group; burning and tingling sensations in the hands and feet in 28.8% of patients in the group and 37.5% in group 2; numbness in the hands and feet in 64.4% of patients in group 1 and 47.9% of patients in group 2; fatigue in the shins and feet with prolonged physical activity in the first group in 33.3% of patients and 45.8% in the second group.

In the neurological status in group 1, 25.5% of patients and in group 2, 27% of patients had moderate weakness and hypotrophy of the muscles of the distal extremities; 80% of patients in group 1 and 89.3% in the second group had a decrease in Achilles reflexes; a decrease in pain sensitivity in the hands and feet was



detected in 68.8% patients in group 1 and 28 (59.5%) in group 2. In 77.7% of patients in group 1 and 56.2% in group 2, vibration sensitivity at the ankle level was reduced and amounted to 4.66 /0, respectively.2. mmHg

The average level of systolic pressure at the beginning of the examination in the first group of patients was 159/2.0 mmHg, diastolic pressure - 93.5/1.5 mmHg. In the second group of patients at the beginning of the examination, the average systolic pressure level was 161/2.3 mmHg, the average diastolic pressure level was 91.5/1.8 mmHg.

There was no statistically significant difference between the 1st and 2nd groups according to clinical data, the level of glycemia and blood pressure was not obtained. The time to achieve maximum aggregation in both groups was significantly shorter than in the control.

Thus, the data of neurological examination and blood pressure level in all examined patients indicated the presence of diabetic polyneuropathy and arterial hypertension. According to electromyography data, in both groups there was a significant decrease in the rates of nerve impulse conduction in relation to the control indicators.

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**CONCLUSIONS:** Vascular disorders have a serious impact on the formation of diabetic polyneuropathy, especially when combined with diabetes and hypertension, significantly worsening the course and prognosis of this complication. The obtained data allowed us to identify the features of changes in the vascular component of the pathogenesis of diabetic polyneuropathy.

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