Fevral, 2025-Yil

#### COMMON EARLY COMPLICATIONS OF TYPE 2 DIABETES IN A MODERN INTERPRETATION

<sup>1</sup>Ziyadullayev Akmal Xusniddin oʻgʻli <sup>2</sup>Abdusalomov Shukurullo Nizom oʻgʻli <sup>3</sup>Negmatova Gulzoda Shuhratovna

<sup>112</sup>1st year residents of the Department of Endocrinology, Samarkand State Medical University <sup>3</sup>Samarkand State Medical University, Department of Endocrinology, Head of Department

https://doi.org/10.5281/zenodo.14894707

Relevance of the problem: In 2015, there were more than 2.5 million patients with diabetes mellitus (DM), and selective epidemiological studies show that the true prevalence of type 2 diabetes is 3-4 times higher than the registered one. According to modern concepts, diabetes mellitus is an independent risk factor for the development of cardiovascular diseases. Among patients with diabetes mellitus, there are individuals with a combination of 2-3 or more complications. Up to 70% of patients with diabetes mellitus die from cardiovascular diseases. As a rule, in newly diagnosed patients with type 2 diabetes mellitus, chronic vascular complications of this disease are detected already at the first visit to the doctor. These include: damage to the blood vessels of the heart and brain with the development of heart attack and stroke, damage to the peripheral vessels of the lower extremities with the development of gangrene, visual impairment due to diabetic retinopathy, and impaired kidney function due to diabetic nephropathy. Patients with diabetes are 2-3 times more likely to develop cardiovascular pathologies (ischemic heart disease, heart attack, stroke) than the general population, 20 times more likely to develop gangrene of the extremities and chronic renal failure, and 10 times more likely to lose vision due to diabetic retinopathy.

**Materials and methods**. We conducted a study of the prevalence of complications in patients with type 2 diabetes in the city of Surgut based on registry data for 2012-2015. Statistical processing of the data was carried out using the statistical software package "Biostat". The null hypothesis of the correspondence of relative frequencies was tested using the z-test, differences were considered significant at p<0.05;

**Results**. Diabetic nephropathy in type 2 diabetes was recorded in 16.9? 9.8% in dynamics for 4 years. Our data for 2015 were slightly higher than (7.7%). Among other complications of type 2 diabetes, diabetic sensory neuropathy was the leader (23% - 24.5% in dynamics for 4 years), which is higher than the whole (17.8%), but comparable to the data for 2015 (24%). Cataracts in type 2 diabetes in 2012-2015. 16.6 and 15.1% were registered, which is comparable to (12.9%),

Fevral, 2025-Yil

but 2 times higher than (7.7%). Autonomic neuropathy in type 2 diabetes was recorded only in 10-2.7%, which is comparable with the data (3.1%), but lower than the data for 2015 (4.8%). The prevalence of diabetic foot in type 2 diabetes also showed a significant decrease from 11.4 to 2%, which is comparable with the data for 2015 (2.8% and 3.3%, respectively). Among the complications of type 2 diabetes, arterial hypertension took the leading place with 50.3-73.9%. From microvascular complications in type 2 diabetes in dynamics from 2012 to 2015. the prevalence of diabetic nephropathy decreased from 16.9% to 9.8%, and vegetative neuropathy decreased from 10% to 2%. From macrovascular complications in type 2 diabetes in 2012-2015. The prevalence of angina pectoris decreased from 17.6% to 13.1%, myocardial infarction from 13.0% to 5.8%, stroke from 14% to 6.7%, lower extremity macroangiopathy from 20.6% to 11.1%, and diabetic foot from 11.4% to 11.4%.

**Conclusion**: Data on the prevalence of such a serious complication as myocardial infarction in patients with type 2 diabetes in 2012-2015. It was 13% -5.8% with a decrease in dynamics over 4 years. In 2015, these figures were relatively high (3.3% and 4.5%, respectively).

According to the registry, the prevalence of stroke was 14.6.7% in 2012-2015. Our figures (3.8%) were slightly higher.

Lower extremity macroangiopathy (LEM) was recorded in 20.6-11.1% of patients with type 2 diabetes and decreased by 2 times in 4 years. In 2015, the prevalence of lower extremity MAP (8.8%) was slightly higher, comparable to the data (12.7%).

The prevalence of diabetic foot in type 2 diabetes also shows a significant decrease from 11.4 to 2%.

Analysis of the prevalence of diabetes complications based on registry data showed that the role of arterial hypertension in the structure of diabetes complications is increasing. To this end, it is necessary to develop a program for the prevention, diagnosis and treatment of arterial hypertension in patients with diabetes in the region, which will reduce the prevalence of some severe complications of diabetes and increase the life expectancy of patients with diabetes.

The reduction in the prevalence of some severe complications of diabetes and the increase in the life expectancy of patients with diabetes, achieved over four years, were made possible by the introduction of the city target program "Diabetes mellitus" into outpatient practice. This program contributed to the wider introduction of methods for self-monitoring of glycemia levels and improving metabolic control, the use of modern insulins and oral hypoglycemic drugs, the creation of schools for training patients and improving their work efficiency, as well as the opening of the "Diabetic Foot" office.

Fevral, 2025-Yil

Diabetes is a costly disease. However, both direct and indirect costs can be reduced by early diagnosis of diabetes and its complications, the introduction of new technologies in treatment, and more effective prevention of diabetes and its complications.

#### **REFERENCES**

- 1. Andryev S. et al. Experience with the use of memantine in the treatment of cognitive disorders //Science and innovation. − 2023. − T. 2. − №. D11. − C. 282-288.
- 2. Antsiborov S. et al. Association of dopaminergic receptors of peripheral blood lymphocytes with a risk of developing antipsychotic extrapyramidal diseases //Science and innovation. 2023. T. 2. №. D11. C. 29-35.
- 3. Asanova R. et al. Features of the treatment of patients with mental disorders and cardiovascular pathology //Science and innovation. − 2023. − T. 2. − №. D12. − C. 545-550.
- 4. Begbudiyev M. et al. Integration of psychiatric care into primary care //Science and innovation. − 2023. − T. 2. − №. D12. − C. 551-557.
- 5. Bo'Riyev B. et al. Features of clinical and psychopathological examination of young children //Science and innovation. 2023. T. 2. №. D12. C. 558-563.
- 6. Borisova Y. et al. Concomitant mental disorders and social functioning of adults with high-functioning autism/asperger syndrome //Science and innovation. − 2023. − T. 2. − №. D11. − C. 36-41.
- 7. Ivanovich U. A. et al. Efficacy and tolerance of pharmacotherapy with antidepressants in non-psychotic depressions in combination with chronic brain ischemia //Science and Innovation. 2023. T. 2. №. 12. C. 409-414.
- 8. Nikolaevich R. A. et al. Comparative effectiveness of treatment of somatoform diseases in psychotherapeutic practice //Science and Innovation. − 2023. − T. 2. − №. 12. − C. 898-903.
- 9. Novikov A. et al. Alcohol dependence and manifestation of autoagressive behavior in patients of different types //Science and innovation. − 2023. − T. 2. − №. D11. − C. 413-419.
- 10. Pachulia Y. et al. Assessment of the effect of psychopathic disorders on the dynamics of withdrawal syndrome in synthetic cannabinoid addiction //Science and innovation. 2023.
  − T. 2. №. D12. C. 240-244.

Fevral, 2025-Yil

- Pachulia Y. et al. Neurobiological indicators of clinical status and prognosis of therapeutic response in patients with paroxysmal schizophrenia //Science and innovation. 2023. T.
  No. D12. C. 385-391.
- 12. Pogosov A. et al. Multidisciplinary approach to the rehabilitation of patients with somatized personality development //Science and innovation. − 2023. − T. 2. − №. D12. − C. 245-251.
- 13. Pogosov A. et al. Rational choice of pharmacotherapy for senile dementia //Science and innovation. 2023. T. 2. № D12. C. 230-235.
- 14. Pogosov S. et al. Gnostic disorders and their compensation in neuropsychological syndrome of vascular cognitive disorders in old age //Science and innovation. 2023. T. 2. №. D12. C. 258-264.
- 15. Pogosov S. et al. Prevention of adolescent drug abuse and prevention of yatrogenia during prophylaxis //Science and innovation. − 2023. − T. 2. − №. D12. − C. 392-397.
- 16. Pogosov S. et al. Psychogenetic properties of drug patients as risk factors for the formation of addiction //Science and innovation. − 2023. − T. 2. − №. D12. − C. 186-191.
- 17. Prostyakova N. et al. Changes in the postpsychotic period after acute polymorphic disorder //Science and innovation. − 2023. − T. 2. − №. D12. − C. 356-360.
- 18. Prostyakova N. et al. Issues of professional ethics in the treatment and management of patients with late dementia //Science and innovation. − 2023. − T. 2. − №. D12. − C. 158-165.
- 19. Prostyakova N. et al. Sadness and loss reactions as a risk of forming a relationship together //Science and innovation. − 2023. − T. 2. − №. D12. − C. 252-257.
- 20. Prostyakova N. et al. Strategy for early diagnosis with cardiovascular diseaseisomatized mental disorders //Science and innovation. 2023. T. 2. №. D12. C. 166-172.
- 21. Rotanov A. et al. Comparative effectiveness of treatment of somatoform diseases in psychotherapeutic practice //Science and innovation. − 2023. − T. 2. − №. D12. − C. 267-272.
- 22. Rotanov A. et al. Diagnosis of depressive and suicidal spectrum disorders in students of a secondary special education institution //Science and innovation. 2023. T. 2. №. D11. C. 309-315.
- 23. Rotanov A. et al. Elderly epilepsy: neurophysiological aspects of non-psychotic mental disorders //Science and innovation. − 2023. − T. 2. − №. D12. − C. 192-197.

Fevral, 2025-Yil

- 24. Rotanov A. et al. Social, socio-cultural and behavioral risk factors for the spread of hiv infection //Science and innovation. − 2023. − T. 2. − №. D11. − C. 49-55.
- 25. Rotanov A. et al. Suicide and epidemiology and risk factors in oncological diseases //Science and innovation. 2023. T. 2. №. D12. C. 398-403.
- 26. Sedenkov V. et al. Clinical and socio-demographic characteristics of elderly patients with suicide attempts //Science and innovation. − 2023. − T. 2. − №. D12. − C. 273-277.
- 27. Sedenkov V. et al. Modern methods of diagnosing depressive disorders in neurotic and affective disorders //Science and innovation. − 2023. − T. 2. − №. D12. − C. 361-366.



MODERN SCIENCE & RESEARCH