



Peculiarities of the Clinical Course of Purulent Surgical Diseases in Patients with Common Endocrinological Pathologies (Literature Review)

1. Kurbanov Obid Makhsudovich
2. Boltaev Timur Shavkatovich

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^{1,2}Bukhara State Medical Institute

ABSTRACT: In our Republic, according to studies conducted in 2019-2020, the prevalence of type 2 diabetes mellitus in Uzbekistan is 8.7% among people over the age of 35. Along with diabetes mellitus, diseases of the thyroid gland now occupy a leading place in the structure of all endocrinopathies. First of all, this is explained by the breadth of prevalence of diffuse goiter in iodine-deficient regions, to which Uzbekistan also belongs. Complications of diabetes mellitus and diffuse toxic goiter is an important problem for the Republic of Uzbekistan, both from a medical and socio-economic point of view. The presented literature review examines modern data on the features of the clinical course of purulent surgical diseases against the background of concomitant endocrine pathologies, diabetes mellitus and diffuse toxic goiter based on world sources. For the selection of data, the following databases were used: Scopus, SpringerNature, PubMed, Google Scholar, the RSCI Elibrary database, etc.

Keywords: purulent surgical diseases of soft tissues, diabetes mellitus, diffuse toxic goiter, features of the clinical course.

All types of diabetes mellitus can cause various complications in many organs of the human body and increase the risk of premature death. In 2012, diabetes was the cause of death for 1.5 million people worldwide. According to the International Diabetes Federation (IDF), there are currently 415 million people in the world who have diabetes. By 2040, the number of people with diabetes is projected to increase to 642 million. In connection with the increase in the number of patients with diabetes, the possibility of obtaining reliable information about the state of health of such patients (development of complications, life expectancy, disability, etc.) is urgent. It is possible to collect and store information using the diabetes mellitus register. The DM register is an automated information and analytical system for monitoring diabetes mellitus throughout the country, which provides for monitoring the patient from the moment he is included in the register and the dynamics of his treatment [1, 4, 6].

Alikhanova D.M. et al. (2016) published data on the epidemiological aspects of diabetes mellitus (DM) types 1 and 2 in Tashkent.

For the study, a unified map of the national register was used, developed by the staff of the center, taking into account the recommendations of the European Association for the Study of Diabetes and the experience of other countries. 16 356 patients were registered in Tashkent, their data were entered into a specialized computer program and processed accordingly. The course of the disease and treatment of registered patients were analyzed, among whom 1225 suffered from type 1 diabetes, 15131 - type 2 diabetes. In Tashkent, 1225 patients with type 1 diabetes are registered, which is 7.5% of the entire population with diabetes. The average level of fasting blood glucose was 10.9 mmol / L in type 1 diabetes and 8.8 mmol / L in type 2 diabetes. Total cholesterol (TC) was determined only in 3144 (20.8%) patients, of which 2380 (91.4%) had a total cholesterol level of more than 4.8 mmol / L. The content of triglycerides was determined in only 507 (3.34%) patients, of whom 374 (91.9%) had their level more than 1.7 mmol / L. The vast majority of patients with diabetes are in a state of decompensation in terms of glycemic control. To date, the provision of therapeutic and prophylactic care to patients with diabetes in Tashkent does not meet modern criteria, which is why the risk of the development and progression of both cardiovascular diseases and chronic microvascular diabetic complications is high [8,9]. Scientists of Uzbekistan are concerned about the insufficient diagnosis and registration of complications of diabetic nephropathy and diabetic retinopathy in the Bukhara and Khorezm regions, in the Karakalpak Republic; there is insufficient diagnosis and registration of macroangiopathies in the Bukhara, Navoi, Khorezm regions, and in Karakalpakia. There is practically no achievement of target glycemic levels in all regions, insufficiently prescribed intensive insulin therapy in all regions, biguanide preparations among patients with type 2 diabetes in all regions, which contributes to an increase in the risk of diabetes complications. There is no vigilance of doctors about macrovascular diabetic complications and the treatment of arterial hypertension, drugs of angiotensin converting enzyme inhibitors (especially in the Khorezm region and the Republic of Karakalpakstan) are not prescribed enough to help prevent complications of diabetes, and in particular diabetic nephropathy. An analysis of the register data for four regions of Uzbekistan showed the lack of work on the diagnosis, treatment and prevention of diabetes complications [8,9,11]. The number of high amputations of the lower extremities due to the development of critical ischemia and diabetic gangrene in such patients reach 50-60% and do not tend to decrease.

Efimov E.V. et al. (2015) found that in patients with diabetes mellitus, with an increase in the duration of the disease, a decrease in the thickness of the epidermis is observed and the frequency of occurrence of signs of horny dystrophy in the epidermis increases. In the zone of dermoepidermal contact and in the dermis in patients with diabetes mellitus, the appearance of areas of adipose tissue is noted. In this case, the occurrence of adipose tissue correlates with the duration of the disease. 180 patients were examined: 122 women (67.8%) and 58 men (32.2%). Traditional methods of assessing the morphology of wound healing were used: smear-imprint from the edge of the wound according to the method of M.P. Pokrovskaya and M.S. Makarov, staining of paraffin sections according to the histochemical technique proposed by D.D. Zerbina and L.L. Lukasevich, studying the thickness of the epidermis and the degree of its keratinization, measuring the zone of the epidermis and dermoepidermal contact. All measurements in histological sections were carried out using an eyepiece micrometer, the results are presented in micrometers. It was found that in patients with diabetes mellitus, with an increase in the duration of the disease, a decrease in the thickness of the epidermis is observed and the frequency of occurrence of signs of horny dystrophy in the epidermis increases. In the zone of dermoepidermal contact and in the dermis in patients with diabetes mellitus, the appearance of areas of adipose tissue is noted. A group of Uzbek scientists (Okhunov A.O., Pulatov U.I., Okhunova D. 2018) analyzed the results of examination and treatment of 56 patients with pyoinflammatory soft tissue diseases who were treated and examined at the Republican Center for Purulent Surgery and Surgical Complications of Sugar diabetes of the Ministry of Health of the Republic of Uzbekistan for the period from 2015 to 2017.

In accordance with the classification of the level of soft tissue lesions, severe purulent-inflammatory diseases were diagnosed in 32% of cases. The entire contingent of patients was operated on urgently. Clinical assessment of the state of the examined and dynamic prediction of the wound process, in addition to routine methods (complaints, anamnesis, examination, hemodynamic parameters, body temperature, general clinical blood and urine tests), also included the determination of the leukocyte index of intoxication, determination of the size of the wound area, bacteriological and cytological studies of the wound, and also subtracted the prognostic coefficient of the course of the wound process. All of them complained of weakness, malaise, pain in the area of postoperative festering wounds, fever up to 37.4-39.0°C, sleep disturbance and lack of appetite. The next criterion for assessing the dynamics of the wound process was to determine the timing of cleansing the wound from infection, resorption of the wound infiltrate, the appearance of granulation and the onset of the appearance of epithelization. The characteristic changes in the wound by this time were reflected in the objective criteria for assessing the wound process. In particular, this was expressed in the change in cytograms. A characteristic feature of the latter is their connection with the dynamics of the process [14,15]. The group of authors presents a morphological ultrastructural analysis of wound samples from 90 patients aged 27–80 years with diabetic foot syndrome and purulent-necrotic complications who were hospitalized in the department of wounds and wound infections of the Vishnev Institute of Surgery in 2013–2016 [17]. Belik B.M. et al. (2020) The presented strategy of complex treatment of pyo-necrotic complications of the neuropathic form of diabetic foot syndrome allowed patients of group II to significantly reduce the degree of microbial contamination of wounds, achieve a faster regression of the content of pro-inflammatory and inflammatory cytokines in the exudate of the wound, and also reduce the time of wound cleansing and transition pyo-necrotic process to the reparative stage. On the other hand, which allows this category of patients to perform plastic wound closure at an earlier date, to avoid generalization of infection and amputation of the limb at a high level.

Diseases of the thyroid gland currently occupy a leading place in the structure of all endocrinopathies. First of all, this is explained by the breadth of prevalence of diffuse goiter in iodine-deficient regions, which include vast territories of the Russian Federation, many other states, including Uzbekistan.

The study of the operating material showed that endemic goiter is a heterogeneous concept and includes diffuse colloid goiter, nodular (multinodular) goiter and diffuse nodular goiter. The most common form of endemic goiter is nodular goiter (61.3%), which is characterized by the presence of a node with a fuzzy pronounced capsule, structural polymorphism, a violation of the histological structure, epithelial proliferation, and secondary changes.

Misiakos EP, Liakakos T, Macheras A, Zachaki A. (2006) A retrospective analysis of patients who underwent thyroid surgery over the past 11 years was carried out. The study period was divided into two parts: phase A (1995-1999) and phase B (2000-2005). Patient characteristics, type of surgery, histological diagnosis and postoperative complications were compared in two study periods depending on the type of surgery.

During the study period, 264 patients aged 18 to 89 underwent thyroid surgery (133 in phase A and 131 in phase B). General histopathological diagnoses: nodular goiter (54.9%), hyperplastic nodules (14.7%), adenoma (8.3%), thyroid cancer (18.2%) and Hashimoto's thyroiditis (3.8%). Total thyroidectomy was performed in 91 patients in phase A compared with 115 patients in phase B ($P < 0.001$), whereas the use of subtotal thyroidectomy and lobectomy decreased over time. Benign nodular goiter is endemic in Germany and diagnostic thyroidectomy is one of the most common surgical procedures.

German scientists (Müller PE, Schmid T, Spelsberg F.) show that the degree of goiter resection can be difficult due to the large multinodular transformation. Total thyroidectomy for goiter is discarded due to the expected increase in complications.

The high recurrence rate of goiter, together with an increased risk of complications, indicates problems with insufficient resection. This study examines the complication rate after total thyroidectomy for goiter. 4767 surgical interventions (partial thyroidectomy, hemithyroidectomy, or complete thyroidectomy) of goiter were investigated. Retrospectively, the incidence of postoperative complications (bleeding, wound infection, recurrent nerve palsy, hypocalcemia) after strumectomy or hemithyroidectomy was analyzed in patients and compared with literature data. Total thyroidectomy (n = 176) did not cause a higher complication rate (bleeding: 0.6%, hypocalcemia: 0.6%; recurrent nerve palsy: 0.6%) compared with the control group and the literature. Thus, complete thyroidectomy may be an effective treatment option for large multinodular goiter [3,12,24].

Conclusion.

Thyroid surgery today is not burdened with a high incidence of major complications. Different surgical institutions with different surgical approach, surgical technique and radicalism have published reports with a large discrepancy in the incidence of complications, analyzing them using different methods of diagnosis and evaluation of the results. Likewise, it is well known that a higher latitude of surgery allows for better control of thyroid disease, but may be accompanied by a greater number of complications. All these prompts a number of authors to analyze the complications of surgical treatment in our patients according to well-known criteria, with the hypothesis that a higher radicality of surgery does not increase the incidence of complications, and that this frequency correlates with the results published in the world literature. The aim of the authors of this non-randomized study was to analyze the results of surgical treatment of a huge number of consecutively operated patients, to analyze and compare the results by disease groups and surgical procedures, and also to compare the final results with the results published in the world literature.

REFERENCE

1. Akanov Zh.A., Seydinova A.Sh., Zhunusbekova N.Zh. and others. The incidence of complications in patients with diabetes mellitus according to the diabetes center // Bulletin of KazNMU. 2015. No. 4. –S.289-292
2. Akbarov Z.S., Alieva A.V., Alimova N.U. and other Screening of diabetes mellitus and intermediate hyperglycemia in Tashkent // Zhurn. teor. And a wedge. medicine. - 2016. - No. 1. - S. 50-56.
3. Babina S.A., Rakhimova K.R., Radostev K.S. Epidemiology, etiology, pathogenesis, clinic, methods of diagnosis and treatment and complications of endemic goiter // Scientificreview No. 4, 2019.- P.24-27
4. Galstyan Gagik Radikovich, Vikulova Olga et al. Epidemiology of diabetic foot syndrome and lower limb amputations in the Russian Federation according to the Federal Register of Patients with Diabetes Mellitus (2013-2016) // Diabetes Mellitus. 2018. No.
5. Dedov I.I., Shestakova M.V., Vikulova O.K. Epidemiology of diabetes mellitus in the Russian Federation: clinical and statistical analysis according to the Federal Register of Diabetes Mellitus // Diabetes mellitus. - 2017. - No. 20 (1). - S. 13-41.
6. Drobushetskaya AI Optimization of treatment of infectious diseases of soft tissues against the background of diabetes mellitus (experimental clinical study): Author's abstract. Dis ... Candidate of Medical Sciences - Krasnoyarsk, 2013. - 25 p.
7. Dubrovshchik O.I., Garelik P.V., Dovnar I.S., Rakovich D.Yu., Sytyy A.A. Real possibilities of reducing the frequency of lower limb amputations in patients with purulent-necrotic complications of diabetic foot syndrome // Journal of the GrSMU. 2015. No. 4 (52).

8. Ismailov S.I., Berdykulova D.M. Late complications of diabetes mellitus in people living in the Republic of Uzbekistan // International Endocrinological Journal. - 2012, - No. 8 (48).
9. Kodirov AR, Yusupova Sh. Prevention and treatment of postoperative complications in high amputations of the lower extremities in patients with diabetic gangrene // Avicenna Bulletin. 2013. No. 2 (55). –S.20-25
10. Kokobelyan Armen R., Bazaev Andrey Vladimirovich Features of the treatment of gangrene in diabetic foot syndrome in combination with atherosclerosis of the arteries of the lower extremities // Journal of MediAl. 2017. No. 2 (20).
11. Kurbonov OM Features of the course of purulent surgical diseases in diabetes mellitus // New day in medicine. - 2020. № 2 (30). - S. 167-170.
12. Kurbonov O.M., Boltaev T.Sh. Purulent wounds in patients with thyrotoxicosis on the background of diabetes mellitus // Tibbiyotda yangi kun No. 4 (32). 2020, - S. 646-650.
13. 13 Davlatova M.H. An Integrative history of Aspectual meanings.-JournalNX-A Multidisciplinary Peer Reviewed Journal, Volume 6, ISSUE 4, Apr.-2020.-P.17-22
14. Okhunov AO, Pulatov U. I. Diagnostics and treatment of severe forms of purulent-inflammatory diseases of soft tissues against the background of diabetes mellitus // Problems of Science. 2018. No. 8 (128).
15. Okhunov A.O., Babadzhanov B.D., Pulatov U.I. The reasons for the generalization of infection in patients with purulent-inflammatory diseases of soft tissues against the background of diabetes mellitus // Bulletin of the Tashkent Medical Academy. No. 4, 2016. Pp. 89-93.
16. Davlatova Mukhayyo Hasanovna. (2021). DIFFERENT ASPECTS OF RESULTATIVE STRUCTURES ACCORDING TO THEIR LINGUISTIC ESSENCE. Academicia Globe: Inderscience Research, 2(05), 475–479.
17. <https://doi.org/10.17605/OSF.IO/D4T8J>.Urmanova Yu.M., Mavlonov U.Kh., Akhmedova Sh.U., Gulyamova Kh.R., Khodzhaeva F.S. Characteristics of developmental disorders in adolescent boys in Tashkent according to screening data // MUE. 2014. No. 3 (59).
18. Mukhayyo Hasanovna Davlatova, “RELATION OF LEXICAL-SEMANTIC STRUCTURE OF VERBS IN THE LINGUISTIC ESSENCE”, IEJRD - International Multidisciplinary Journal, vol. 6, no. SP, p. 5, Jan. 2021.
19. Marston WA, Lantis JC 2nd, Wu SC, One-year safety, healing and amputation rates of Wagner 3-4 diabetic foot ulcers treated with cryopreserved umbilical cord (TTAX01).//Wound Repair Regen. 2020 .-1;28(4):526-531.
20. Unmar Y, Zafar MI, Gao F. Factors associated with peripheral neuropathy in type 2 diabetes: subclinical versus confirmed neuropathy. Journal of Huazhong University of Science and Technology. //Medical Science 2017 Jun;37(3):337-42.
21. Qurbanov O.M., Boltaev T.Sh, Sharopova M.S. Recovery of purulent injuries on the background of a diffuse toxic goiter in combination with diabetes mellitus// International engineering journal for research and development Vol.5Issue 9 2020.p 1-10.
22. Davlatova, M. H. (2020). An Integrative history of Aspectual meanings. JournalNX-A Multidisciplinary Peer Reviewed Journal, Volume6, (4), 17-22.
23. NA.Narzieva, N.Hasanova Communicative competence as a pedagogical model in the classrooms, ACADEMICIA: An international Multidisciplinary Research Journal, volume 10(6), 78-81, 2020

24. NA Narzieva The concept of defined target technologies and their role in the educational process, Theoretical and Applied science, 2020
25. AD Ahmedovna, Narziyeva N.A, Main styles and methods of teaching speaking foreign languages to medical institutes , International Engineering Journal for research and development 6 (SP), 4-4, 2021
26. Boltaev Timur Shavkatovich, Qurbanov Obid Maxsudovich, Sharopova Malohat Sayfullayevna, Narziyeva Nilufar Atakulovna Recovery of purulent injuries on the background of a diffuse toxic goiter in combination with diabetes mellitus, International Engineering Journal For Research & Development5(9), 10-10, 2020
27. NN Narzieva Development of Education and Research Activity Profile Class Students on the Basis of Integrative and Personal Approach, www.auris-verlag. de, 2017
28. NN Atakulovna Factors supporting teaching and learning English in non-English speaking countries, ResearchJet Journal of Analysis and inventions 2(06), 297-305, 2021.
29. Davlatova Muhayyo Hasanovna. 2020 Linguistic-Cognitive and Semantic Features Of Effective Constructions Of English And Uzbek Languages International Journal of Advanced Science and Technology, Volume 29, No.8.Pages 3572-3576.
30. Davlatova Muhayyo Hasanovna. SEMANTIC IMPLENTATION OF RESULTUTIVE STRUCTURES. Volume 7, Issue 6, June, 2021 page;.-291-293
31. Davlatova, Mukhayyo Khasanovna THE PROCESS OF TRANSFORMATION OF PHILOSOPHY UNDERSTANDING AS FACTOR OF INFORMATION CULTURE OF THE PERIOD OF THE ENGLISH RENAISSANCE (XVI C.) // ORIENSS. 2021. №5. URL: <https://cyberleninka.ru/article/n/the-process-of-transformation-of-philosophy-understanding-as-factor-of-information-culture-of-the-period-of-the-english-renaissance> (дата обращения: 17.07.2021).
32. Мухайё Ҳасановна Давлатова РЕЗУЛЬТАТИВЛИКНИНГ АСПЕКТУАЛ ТАДҚИҚОТЛАР ДОИРАСИДА ЎРГАНИЛИШИ // Scientific progress. 2021. №2. URL: <https://cyberleninka.ru/article/n/rezultativlikning-aspektual-tad-i-otlar-doirasida-rganilishi> (дата обращения: 17.07.2021).