



## MORPHOLOGICAL CHARACTERISTICS OF PURULENT WOUNDS IN THYROTOXICOSIS

### THE INFLUENCE OF ON THE MORPHOLOGY OF PURULENT WOUNDS IN THYROTOXICOSIS



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#### **Annotation. Relevance**

Thyotoxicosis is a common endocrine, endemic disease and is a serious medical and social problem in many countries of the world, including the Republic of Uzbekistan.

#### **Purpose of the Study**

Improving the results of treatment of purulent surgical diseases of soft tissues against the background of thyrotoxicosis, by developing and improving pathogenetically substantiated methods of treatment.

#### **Material and Methods**

An analysis of the clinical course of purulent wounds was carried out, taking into account the dynamics of morphological changes in soft tissues against the background of thyrotoxicosis, and an assessment of the results of their treatment. Thyrotoxicosis was diagnosed in 104 (10.5%) of 986 patients treated at the clinical base of the State Medical Institute. As a result of the study, in patients with purulent surgical diseases against the background of thyrotoxicosis, a complex peculiar clinical course is observed and leads to severe complications. Timely correction of hormonal disorders with thyreostatics leads to better treatment results, which are confirmed by histological and cytological studies. Such patients should be treated in conjunction with an endocrinologist.





## Conclusions

The decrease in resistance to infection and the frequent occurrence of purulent-inflammatory diseases in patients with thyrotoxicosis are due to violations of hormonal and immunological processes in the body. These violations are confirmed in morphological studies.

**Keywords:** purulent wounds, thyrotoxicosis, clinical course, morphology, treatment, surgery.

## Introduction

The thyroid gland is an organ of the endocrine system and, among other functions, performs the function of supporting homeostasis in the body [1; 4; 7; 12.] The causes of the development of diffuse toxic goiter are a violation of the immune system [2; 5; 8; 9.]. In this case, the patient's immunity begins to produce antibodies, which subsequently affect the TSH receptors [3;8;11,17.] As a result of these processes, the thyroid gland begins to enlarge and produces a large amount of hormones. Due to the increased amount of thyroid hormones in the body, the patient's metabolism accelerates [4; 8.15.]. All this leads to a rapid depletion of the energy that the body needs for life [1;4;5;8;12.]. In recent years, as a concomitant disease, cases of thyrotoxicosis have become more frequent in patients with purulent surgical diseases [6;16]. Despite the introduction of various chemical and physical methods of influencing the wound healing process, the use of broad-spectrum antibiotics in clinical practice, an increase in the virulence of microflora and a decrease in their resistance to antibiotics, difficulties in combating hospital infections, weakening the protective mechanisms of the macroorganism, pose the problem of treating purulent surgical diseases. in a number of very important tasks of practical surgery B.B. Safoev [2;10]. The increased interest in the problem is also explained by the fact that, along with the development of modern medicine and technology, ideas about the course of the wound process are changing [2; 10, 14].

A complex pathogenetic mechanism for the development of thyrotoxicosis has a systemic character. On the one hand, microcirculation disorders, ischemia, tissue hypoxia, the development of oxidative disorders in cells in purulent surgical diseases, and on the other hand, hemodynamic disturbances, suppression of the immune system and metabolic disorders in thyrotoxicosis adversely affect the outcome of purulent surgical diseases [4 ;5;9.]. The decrease in resistance to infection and the frequent occurrence of purulent-inflammatory diseases in patients suffering from thyrotoxicosis are due to violations of immunological and plastic processes in tissues





[3;8]. This is based on hormonal disorders that have an active influence on all metabolic processes [7;11]. In recent years, a fairly large proportion has been occupied by patients with purulent surgical diseases against the background of thyrotoxicosis [6,13]. The main reasons that contribute to the development of purulent surgical diseases in patients with thyrotoxicosis are:

- Hormonal disorders that lead to a severe course of the disease than in healthy patients;
- Reduced immunity and general weakening of the body.
- Violations of protein metabolism, which has an active effect on all metabolic processes.

The most common etiological factors of purulent surgical diseases against the background of thyrotoxicosis are gram-negative bacteria, anaerobic microorganisms, staphylococci, clostridial infections, etc.

Materials and methods. In the clinical base of Bukh State Medical Institute, for the period from 2009 to 2019, 986 patients with purulent surgical diseases were hospitalized. Of these, 104 (10.5%) patients had various forms of thyrotoxicosis. The age of the patients ranged from 20 to 64 years, with a mean age of 42 years. Men - 47 (45.2), women - 57 (54.8%). All patients, depending on the method of treatment, were divided into the following two groups: I - control 30 (28.8%) patients with various purulent surgical diseases associated with thyrotoxicosis, who underwent traditional methods of treatment - opening a purulent focus, debridement of the wound and applying a water-soluble ointment under a bandage. II - the main group, included 74 (71.2%) similar patients who traditional local treatment was supplemented by correction of hormonal disorders in thyrotoxicosis. The volume of surgical interventions consisted in opening, sanitation and drainage of purulent cavities under general anesthesia, taking into account the anatomical location, size and stage of the purulent process. All patients underwent a general examination complex: clinical blood and urine tests, biochemical blood test, coagulogram, blood type and Rh factor, plain chest X-ray.

## Results and Discussion

Of the total number of patients, 104 (100%) patients were diagnosed with thyrotoxicosis of varying severity. So of these, 58 (55.8%) patients have mild thyrotoxicosis, 41 (39.4%) of moderate severity, and 5 (4.8%) of severe patients with complications.

The indicators of the clinical blood test did not always correspond to morphological changes: in 18 patients (43%), leukocytosis was below  $9.0 \times 10^9$  g / l, and in 14 patients





(32%), the percentage of stab forms did not exceed 10, which in most cases was noted in elderly and senile patients and, perhaps, this is due to the unresponsiveness of the body during this period of life and due to the presence of thyrotoxicosis. The maximum values of these parameters in other patients reached: leukocytosis —  $26.4 \times 10^9$  g/l, metamyelocytes — 2%, stab — 32%, toxic granularity ++.

Along with clinical manifestations, indicators of hormonal tests of the thyroid gland (Table No. 2) were analyzed in patients with purulent surgical diseases associated with endocrine pathologies. At the same time, in patients with mild thyrotoxicosis, no particularly pronounced hormonal disorders were noted. However, with a moderate degree of goiter, a decrease in TSH activity was accompanied by an increase in the level of T-3 and T-4. the immune system is suppressed in thyrotoxicosis. More pronounced hormonal disorders were observed in severe goiter with thyrotoxicosis. Thus, by a decrease in TSH activity, the level of thyroid hormones T-3 and T-4 increased sharply, at the same time an increase in Anti-TPO activity was observed. In severe thyrotoxicosis, the development of a purulent process was accompanied by an increase in temperature to 39-40 C. In some patients, consciousness was darkened. The purulent process proceeded with high intoxication, severe ketonuria. There were also pronounced functional disorders of the kidneys and liver, a significant increase in the number of leukocytes in the peripheral blood and an increase in ESR.

With thyrotoxicosis of moderate severity, daily use of Mercozalil 1 t X 3 times a day was required. Patients with a severe form of the disease needed the introduction of immunoprotectors. Patients in this group often experienced complications of thyrotoxicosis (nephropathy, ophthalmopathy, cardiomyopathy, etc.). In the study of patients of groups, I and II (Table No. 3), a number of advantages were revealed in the second group, where hormonal and autoimmune disorders were corrected, by using Mercazolil at 1m X 3p immunomodulin in the complex traditional therapy of thyrotoxicosis. These advantages were mainly reflected in the acceleration of wound cleansing from infection, the timing of resorption of the infiltrate, the early appearance of reparative processes, then in patients in whose complex treatment hormonal disorders were not corrected. As a result, the average stays of bed days of patients decreased.

In histological studies of purulent wounds, against the background of a decrease in the volume of the wound cavity, while maintaining its depth, there was a beginning of the process of granulation along the edges of the wound channel. This corresponds to the completion of the first phase of the course of the purulent-inflammatory process and indicates the beginning of the second phase - regeneration, in the papillary layer





of the dermis, the accumulation of a large number of segmented leukocytes surrounded by a connective tissue membrane. (Fig. 4)

Thus, our retrospective analysis of the treatment of patients with purulent surgical diseases associated with thyrotoxicosis revealed: a large percentage of the occurrence of purulent surgical pathology against the background of thyrotoxicosis. Systemic damage to the body in the pathogenesis of thyrotoxicosis negatively affects and complicates the treatment of this category of patients, which indicates the need for further scientific and practical research aimed at solving this problem.

## Conclusions

1. Purulent surgical diseases up to 11% of cases occur against the background of thyrotoxicosis.
2. Thyrotoxicosis complicates the treatment of patients with purulent surgical diseases and disrupts the morphology of the wound process.
3. The development of new methods for the treatment of patients with purulent surgical diseases, taking into account the concomitant pathology of thyrotoxicosis, is an urgent problem in surgery.
4. The decrease in resistance to infection and the frequent occurrence of purulent-inflammatory diseases in patients with thyrotoxicosis are due to violations of hormonal and immunological processes in the body. These violations are confirmed in morphological studies.

## References

1. Арсланбекова Абаханум Чопановна. Состояние микроциркуляции у больных с заболеваниями щитовидной железы и их коррекция: диссертация кандидата медицинских наук: 14.00.05 / [Место защиты: ГОУВПО "Дагестанская государственная медицинская академия"]. - Махачкала, 2008. - 127 с.: ил.
2. Багатурия.Г.О; Комбинированные хирургические вмешательства при запущенном раке щитовидной железы. Вестник хирургии. 2009г №5с.31-34.
3. Бельцевич Д.Г. и (соавторы)Проект: клинические рекомендации Российской ассоциации эндокринологов по диагностике и лечению узлового зоба (новая редакция 2015 года). Эндокринная хирургия. – 2015. - №1 – с. 15-21.
4. Бутырский А.Г., Хилько С.С., Влахов А.К., Бобков О.В., Скоромный А.Н., Фомочкин И.И., Гринческу А.Е. Диагностика и хирургическое лечение



заболеваний щитовидной и парашитовидных желез. Симферополь-2018г с. 31.

5. Курбанов О.М. Особенности клинического течения гнойных хирургических заболеваний с сопутствующим сахарным диабетом и диффузным токсическим зобом. Монография 2020г. 178с.
6. Курбонов С., Гулов М.К., Давлатов И.А. Комплексное изменение структуры щитовидной железы при диффузном токсическом зобе // Международный журнал прикладных и фундаментальных исследований. – 2018. – № 9. – С. 46-49;
7. Уразова О.И., Кравец Е.Б., Новицкий В.В., Рогалёва А.В., Васильева О.А., Кузнецова В.Н., Недосекова Ю.В.
8. Активность перекисного окисления липидов и системы глутатиона в лимфоцитах крови у больных диффузным токсическим зобом.
9. Якубовский, С.В. Г.Г. Кондратенко, И.И. Попова // Использование сукцинатсодержащих препаратов в комплексном лечении пациентов с диффузным токсическим зобом // УО Белорус. гос. мед. ун-та. Клиническая медицина. – 2014. – № 8. – С. 50-53.
10. Курбанов О.М. Особенности клинического течения гнойных хирургических заболеваний мягких тканей с сопутствующими патологиями сахарного диабета и диффузного токсического зоба. Хирургия Узбекистана. – Ташкент. №2 (90) 2021 г. С. – 89 – 95.
11. BrixT., HansenP., KyvikR. et al. Cigarette smoking and risk of clinically overt thyroid disease a population based twin case - control study // J.Endocrinol. Invest. - 1999. - Vol.22. - №6, Suppl. - P.22.
12. Diekman, M.J. Changes in plasma low-density lipoprotein and high-density lipoprotein cholesterol in hypo- and hyperthyroid patients are related to changes in free thyroxine, not to polymorphism in LDL receptor on cholesterol ester transfer protein genes / M.J. Diekman, N. Anghelescu, E. Endert et al. // J. Clin. Endocrinol. and Metabolism. - 2000. - Vol. 85. - P. 1857-1862.
13. O.M. Kurbanov. Clinical course of purulent soft tissue diseases on the background of diabetes mellitus and diffusive toxic goiter. Journal NX ISSUE 80 Impact factor: 7.223 2021 june P. - 309–314.
14. O.M. Kurbanov., T.Sh. Boltayev. Purulent wounds in patients with thyrotoxicosis on the background of diabetes mellitus. International Engineering Journal for Research & Development Vol 6, Issue 2. 2021й Р. – 1 – 8.



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15. Safoev B.B., Kurbanov O.M., Sharopova M.S. Clinical course of purulent soft tissue diseases on the background of diabetes mellitus and diffusive toxic goiter. World journal of pharmaceutical Research 2020. Volume 9, Issue 5. 1540-1546.
16. 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
17. NA Narzieva The concept of defined target technologies and their role in the educational process, Theoretical and Applied science, 2020
18. 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
19. NN Narzieva (2017), Development of Education and Research Activity Profile Class Students on the Basis of Integrative and Personal Approach, www. auris-verlag.



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