

Modern Principles for the Treatment of Purulent Surgical Patients

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Annotation: in 2015-2016, the prevalence of Type II diabetes in the urban and rural areas of Tashkent, Khorezm and Kashkadarya regions of the Republic of Uzbekistan was 7.9%, glucose tolerance disorder was 4.4%, and empty stomach glycemia disorder was 1.4%. The prevalence of overweight and obesity is observed not only among individuals with impaired carbohydrate metabolism, but also among healthy individuals. While more than 35% of the Republic's population suffers from varying degrees of obesity, 70% of this population is predicted to be at risk of developing cardiovascular disease over the next 10 years.

Key words: diabetes mellitus, thyroid gland, purulent surgical infection, purulent surgical infection, gangrene, diffuse toxic ulcer, complex treatment.

Actuality: in the world, the treatment of wound infection is carried out using antibacterial drugs. But "...pathogenic microorganisms that are important in the etiology of purulent surgical diseases have significant virulence, bioavailability and antibiotic resistance characteristics..." . According to the International Diabetes Federation (IDF), at the same time, 415 million patients with diabetes were registered in the world. The number of diabetic patients is expected to reach 642 million people by 2040. Due to the increasing number of patients with diabetes, the likelihood of obtaining reliable information about the health of such patients remains relevant.

Despite the development of biological and physical methods of wound healing, the main role to date belongs to the use of wound coatings and drugs for external use, since they are common, easy to use, their use does not require special skills and special equipment [2].

Work on creating new dressers or modifying existing dressers is aimed at obtaining the material applied to the wound in order to optimize the conditions of its treatment, taking into account the peculiarities of wound Genesis and the treatment of wounds in the early stages after their appearance [3-5].

Alginate bandages are mainly used to treat postoperative infected wounds and wounds of the lower extremities. Ion exchange occurs when an alginate bandage comes into contact with wound exudate, calcium ions in the alginate bandage are exchanged for sodium ions in the tissue fluid or wound exudate, and the bandage swells. The degree of swelling of the bandage depends on the chemical composition, as well as its origin. One of the main reasons for the use of alginates in dressing materials is their hemostatic ability. In a study by Segal et al. the coagulation effect of zinc in the calcium alginate bandage is comparable to that of non-alginate bandages. Alginate bandages have been found to be more effective than non-alginate ones. Alginate bandages remain gel-like longer than hydrocolloids. Alginate bandages are used in tissue repair and Bioengineering, depending on their composition. In this regard, sodium alginate is identified as a substrate for cell proliferation. Alginate gels can also be used to deliver low molecular weight drugs that spread rapidly through alginate gels. In The Study, D. Boggione et al. the ability to maintain the vital activity of bacteriophages in the form of a gel based on calcium alginate for up to 21 days was demonstrated.

There are more than 350 types of wound coatings in the world — not counting ointments, pastes, films, sponges, gels, dry dispersed forms, traditional dressings created on the basis of natural and

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synthetic threads using fabric and non-woven technologies, as well as their various combinations and combinations.

The frequency of occurrence of the main complications in the practice of thyroid surgery in the world is not so high. Various surgical approaches, surgical techniques and various surgical institutions with their own strict views have published reports that differ greatly in the frequency of complications and analyzed them using different methods of assessing the diagnosis and results. It is also known that extensive surgical interventions, although they can cause many complications, allow for better control of thyroid diseases. Currently, thyroid diseases occupy a leading place in the structure of all endocrine pathologies.

According to the results of the screening – in 2015-2016, the prevalence of Type II diabetes in the urban and rural areas of the Tashkent, Khorezm and Kashkadarya regions of the Republic of Uzbekistan among the population over 35 years old was 7.9%, glucose tolerance disorder was 4.4%, glycemia disorder on an empty stomach was 1.4%. The prevalence of overweight and obesity is observed not only among individuals with impaired carbohydrate metabolism, but also among healthy individuals. While more than 35% of the Republic's population suffers from varying degrees of obesity, 70% of this population is predicted to be at risk of developing cardiovascular disease over the next 10 years.

In 2012, a selective screening study of diabetes mellitus and intermediate hyperglycemia was conducted by the Uzres SSV in Tashkent. A total of 957 volunteers were examined, with 4.6% of those examined diagnosed with DM, 53% of whom were found to have a hereditary predisposition to this disease.

N. M. Alikhanova et al (2016) published data on the epidemiological significance of Type I and Type II DM in Tashkent. It was noted that the level of medical care for DM in Tashkent today does not correspond to international parameters, after which it was noted that the risk of developing persistent microvascular and cardiovascular complications of DM increases.

Scientists of Uzbekistan in the Bukhara region, Khorezm region, Karakalpakstan Republic do not have any shortcomings in the system in sufficient diagnosis and recording of complications of diabetic nephropathy and diabetic retinopathy. At the same time, analysis of census data on the four regions of Uzbekistan showed a lack of work on the diagnosis, treatment and Prevention of DM complications.

A number of scientists estimate that the number of patients with DM pathology is underestimated by 2-3 times due to the fact that patients with DM are not registered in dispensaries. While this phenomenon is associated with the diagnosis of Type I DM during the neonatal period in the process of standard professional examinations due to the hereditary origin of Type I diabetes, Type II DM is observed at the age of 30-60 years, which leads to an increase in vigilance in relation to this pathology and an increase in the number of complications

Currently, the main tactics for the treatment of patients with purulent-inflammatory diseases are developed and included in practical activities, which consist in high-quality surgical sanitization and drainage of purulent foci, adherence to antimicrobial therapy and therapy, and disinfection of purulent foci. anti-inflammatory treatment and optimization of the cellular mechanisms of the wound process. Dozens of tactics are introduced each year to treat patients in this category, but none of the presented meets modern surgical criteria in all respects. Every year, more and more experts make sure that there is no dynamics in the treatment with standard therapy. This problem occurs against the background of the rapid adaptation of microbes to modern antibacterial drugs due to the high rates of mutation. A distinctive feature of treatment, as well as an important aspect of curating purulent-inflammatory foci, are aesthetic factors due to its social significance.

We are interested in the peripheral effects of thyroid hormones and their metabolites. With excessive secretion of T-3, the degrading enzymes of t-3 are activated, otherwise deiodinases that destroy T-3 hormones, pathological (atypical) variants of t-3 are formed, which, in turn, negatively affect tissue



regeneration .Enhances inflammatory processes matose tissue changes or organs that are more susceptible to the action of these atypical t-3 forms.

The main method of treatment of the purulent process in patients with diffuse toxic ulcers and diabetes mellitus accompaniment consists in carrying out surgical treatment in combination with physical methods (ultrasound, UFO); local regeneration of the purulent furnace by modern methods, early surgical interventions. The main principle of treatment for DM complications of a purulent nature is to reduce the time and increase the dynamics of wound healing in order to optimize the life activity of patients, to restore the life and activity of patients. With incorrect or ineffective selection of treatment tactics, the general condition of the patient is more likely to worsen, which can lead to death due to dangerous pathology.

The purpose of the study is to improve the results of treatment of disorders of the metabolism of patients with purulent surgical diseases of soft tissues against the background of diffuse toxic edema and diabetes mellitus in the optimal state.

Materials and methods: in the Department of purulent surgery, located at the clinical base of the Bukhara State Medical Institute, data on the examination and treatment of 104 patients with purulent injuries of soft tissues of various etiologies against the background of endemic bovine and diabetes homology treated in 2016-2022 were analyzed.

Results: diabetes damage to the early nervous system, combined with vascular problems, leads to significant changes against the background of toxic bovine accompaniment, which leads to the development of a purulent-necrotic process.

An examination of a purulent-necrotic wound in the presence of diffuse toxic ulcers and diabetes showed that the multivalent microflora contained up to 88% of aerobic-anaerobic flora in the patient's leg, with 12% of the occurrence of aerobic bacteria alone. In the presence of diabetes mellitus, the inability to instantly get rid of the pathogenic flora in a purulent wound leads to long-term preservation of open wound formation. Due to the preservation of this damage, the likelihood of infecting hospital infections increases significantly.

In the acute stage of the disease, there is a high risk of suppuration and spread of soft tissues through skin defects, which leads to diseases such as phlegmon, arthritis. Misinterpretation of clinical and biochemical data leads to the choice of the wrong tactics of treating purulent surgical diseases, which increases the risk of deep limb damage. Difficulties in diagnosing are primarily due to the fact that surgeons do not have awareness of these complications and diabetes, and there are also no clear algorithms for the treatment and rehabilitation of such patients. Thus, the awareness of doctors about the possibility of developing complications avoids errors in the stages of diagnosis and treatment of patients with purulent-inflammatory processes due to the presence of DM.

Analysis of the results of Transcutaneous oximetry of wound tissue in patients with co-walking endocrine diseases, diffuse toxic ulcers and diabetes mellitus showed that the initial PO₂ level of the wound wall on the day of admission of patients was significantly lower than normal, which is approximately. 72.0% of the regulatory figures.

By the 9th day of the course of treatment, these indicators gradually returned to the meioric state, in patients in Group I with no endocrine diseases, relatively these indicators lagged by 3-4 days from the meioric period, and in patients in Group II, deviated by 2-3 days.

Thus, our study of Group II patients with purulent diseases of soft tissues, in background diseases accompanied by diffuse toxic ulcers and diabetes mellitus, revealed the following characteristics of the injury process: - all indicators of body intoxication, ph environment of injury and trauma PO₂ indicators on the day of admission of patients significantly deviated from the norm than patients in Group I and II.



In the dynamics of the traditional method of treatment, these indicators normalized more slowly than in groups I and II and lagged by 2 days. At the same time, bed days were 10 ± 1.4 days, whereas in Group II patients these rates were 8 ± 1.5 days.

Our study shows the connection between the presence of comorbid diseases and their negative impact on the wound process, the need to focus on timely medicalization (correction) of hormonal, carbohydrate, protein and mineral metabolism disorders, as well as oxygen saturation of the wound.

The next chapter of our study focuses on the treatment of purulent surgical diseases of soft tissues against a combined background of diabetes mellitus and diffuse toxic bull. Against the background of combined endocrine diseases, diabetes mellitus and diffuse toxic edema, purulent surgical diseases accelerate the medicalization of all these indicators, including general intoxication, as well as the time of cleansing and wound healing for 2-3 days than similar patients in Group II. All this indicates that against the background of combined endocrine diseases of diabetes mellitus and diffuse toxic bull, purulent surgical diseases of soft tissues are more difficult to treat than the isolated occurrence of these endocrine diseases.

Thus, a comparative analysis of the results of the treatment of patients in groups I, II and III determined the following characteristics:

- the use of levomekol ointment for local treatment of purulent wounds with the traditional method of treatment leads to complete cleansing of the wound, normalization of clinical and laboratory indicators of intoxication.

At the same time, the presence of indicators of intoxication of the body (L, LII) and biochemical indicators of wound exudate (PH, wound exudate protein, BK in Mazuric) is of important diagnostic and prognostic importance for assessing the course of the wound process.

Indicators of the main assessment criteria and dynamics of the wound process, which are the duration of cleaning the wound from infection on 2-3 days of treatment, the onset of granulation on 3-4 days of treatment, the onset of epithelization within 5-6 days.

The average duration of treatment for patients in the comparison group was 6 ± 0.7 days. All these processes occur against the background of normal indicators of mineral, carbohydrate and protein metabolism, as well as PO₂ indicators.

- The study of patients of Group II with purulent surgical diseases of soft tissues against the background of accompanying diseases, diffuse toxic ulcers and diabetes mellitus with the traditional method of treatment revealed the following features of the wound process: all indications of intoxication. the temperature, Ph-injury environment, and PO₂ rates of injury significantly deviated from the norm in patients' daily receipts than in Group I patients. In the dynamics of the traditional method of treatment, these indicators normalized more slowly than in the i-group and decreased by 2 days. At the same time, the average bed days were 10 ± 1.4 days, whereas in Group I patients the rate was 8 ± 1.5 days.
- in addition to surgical intervention, simultaneous feathering of hormonal, mineral, carbohydrate, protein metabolism, as well as microcirculation disorders is the best way to treat patients with purulent diseases of soft tissues against a combined background of diffuse toxic edema and diabetes mellitus.

Conclusion: studies in patients with purulent diseases of soft tissues have shown that the wound process proceeds according to certain characteristics when accompanied by endocrine pathology. Thus, the beneficial effects of levomekol ointment, such as the fact that it provides a complete cleansing of wounds, has a dehydrating, anti-inflammatory and antimicrobial effect on tissues, have been found in local Golding.

The study of patients in the first group of comparisons with purulent-necrotic diseases of soft tissues with the traditional method of treatment revealed the following features of the course of the process in the wound: the use of levomekol ointment for the local treatment of purulent wounds. complete wound



cleansing will meuriate clinical and laboratory indications of intoxication. The average duration of treatment for patients in the comparison group was 6 ± 0.7 days.

It should be noted that the results of morphological studies of patients of this group fully corresponded and confirmed the traditional modern theory of the process in trauma, which is widely known in clinical practice.

The first destructive-inflammatory stage of the wound with hyperemia and decreased swelling, the transition to the second regenerative phase was observed for 4-5 days of treatment. Morphological and histopathological studies conducted by us have confirmed that with the continuation of traditional treatment, the transition to the second or third stage of the process in the wound occurs 7-8 days after the start of treatment.

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