



## Tactics of Treatment of Purulent-Septic Complications in patients with Diabetes Mellitus

<sup>1</sup>Abdullaev Sayfulla Abdullaevich

<sup>2</sup>Jalolov Sultan Irnazarovich

<sup>3</sup>Gapparov Alisher Toshpulatovich

<sup>4</sup>Yuldashev Farruh Shokirovich

### <sup>1</sup> EMAIL:

[Sayfullaabdullaev525@gmail.com](mailto:Sayfullaabdullaev525@gmail.com)

Received 25<sup>th</sup> February 2021,

Accepted 15<sup>th</sup> March 2021,

Online 17<sup>th</sup> March 2021

**ABSTRACT:** Despite the development of medical science, the problem of surgical infection in diabetes mellitus remains an urgent problem. Currently, there are about 500 million people with diabetes in the world (WHO, 2017).

Patients with purulent-septic diseases of soft tissues, complicated by infections, make up 12-62%. Infectious diseases against the background of diabetes mellitus often occur at lightning speed, requiring diagnostic alertness on the part of doctors of all specialties. To improve complex methods of surgical treatment of purulent-septic wounds of complications in patients with diabetes mellitus.

**Key words:** diabetes mellitus, sepsis, necrotic fasciitis, necrotomy.

<sup>1</sup> Professor of the Department of Surgical Diseases

of the Pediatric Faculty of SamSMI,

<sup>2</sup> Resident doctor of the Samarkand City Medical Association

<sup>3</sup> Resident doctor of the Samarkand City Medical Association

<sup>4</sup> Assistant of the Department of Surgical Diseases

of the Pediatric Faculty of Samara State Medical Institute

Department of Surgical Diseases of the Pediatric Faculty

of the Samarkand State Medical Institute Samarkand City Medical Association

Republic of Uzbekistan

## Introduction.

In the purulent-septic center of the Samarkand City Medical Association, 76 patients with purulent-septic inflammatory processes of soft tissues, diabetes mellitus complicated by necrotic fasciitis were hospitalized. There were 44 men and 32 women. The age of the patients ranged from 24 to 78 years.

The causes of purulent-necrotic soft tissue inflammation were:

- type II diabetes mellitus, severe form, with diabetic foot syndrome;
- paraproctites;
- phlegmon of the perineum;
- Fournier's disease;
- phlegmon of the upper and lower extremities;
- deep post-injection abscesses;
- postoperative suppuration of the wound, complicated by phlegmon of the anterior abdominal wall;
- phlegmon of the hernial sac.

## MATERIALS AND METHODS

The diabetic history in these patients averaged 12.3 years. 30 patients suffered from diabetes mellitus from 5 to 15 years, which was 39%. In 39 patients, a diabetic history was observed for 16-20 years, which was 51%. The remaining 7 patients had a diabetic history of more than 21 years, which was 10%. However, despite a long history of diabetes, these groups of patients turned to the doctor very late.

With the development of fasciitis, the first to be affected are the superficial fascia, subcutaneous fat. In this stage of the disease, the primary signs do not appear, in terms of diagnosis, there are certain difficulties.

In necrotic fasciitis, massive edema, local pain and signs of intoxication appear. When the purulent-necrotic process is localized in the area of the feet and fingers, the purulent process spreads up the fascia and along the synovial membrane of the muscles (myonecrosis).

When opening the phlegmon, abscess far from the infiltrate of soft tissues in the depth of the wound, viscous, yellowish-gray purulent masses with a specific ichorous smell were revealed. Sepsis was detected in 31 patients. In 45 patients, the usual course of purulent-inflammatory processes of soft tissues was observed without the phenomenon of sepsis. After appropriate preoperative preparation, they were urgently opened with wide incisions. In the presence of anaerobic phlegmon, we made several incisions of a "lampas" nature. In the postoperative period, a step-by-step neurectomy was performed.

## RESULTS AND DISCUSSION

In recent years, when choosing the method of surgical treatment of patients with purulent-necrotic complication of diabetes mellitus, we take into account the nature and prevalence of the inflammatory process of soft tissues.

Pathogens of purulent-necrotic phlegmon of soft tissues, especially complicated by necrotizing fasciitis, can be various microorganisms:

- streptococci, staphylococci, enterococci, E. coli and other obligate anaerobes.

Local clinical signs of necrotic fasciitis have their own characteristics, specific local signs were not visually determined on the skin. A special feature of the course of necrotic fasciitis is the purulent process of subcutaneous tissue, which spreads through the fascia and develops a putrefactive-necrotic process in the fascia and passes into the underlying muscles (myonecrosis). We observed a group of patients who were admitted to the hospital late, their conditions were severe and clinical signs of sepsis were revealed.

In our observations, it turned out that patients with acute paraproctitis, complicated by perineal fasciitis, large phlegmons of the anterior abdominal wall, purulent-necrotic phlegmons of the fingers

and feet went to the hospital late. It was in this group of patients that sepsis often developed. Ultrasound is a highly informative diagnostic method for the localization of the purulent process of soft tissue, its size, and the depth of the lesion.

In the treatment of necrotic fasciitis, timely, early radical surgical intervention is necessary: a full-fledged surgical incision, wound sanitation, adequate drainage.

All our patients underwent timely surgical treatment, that is, paraproctitis was opened with wide incisions, phlegmons of the thigh and lower leg were opened with long incisions, and necrotic tissues were removed. In some cases, due to the severity of the patients' condition, it is impossible to perform a complete necrotomy. Therefore, a step-by-step necrotomy was performed in the postoperative period. We performed staged necrotomies with adequate drainage in severe patients from 3 to 8 times. In the presence of complications of anaerobic phlegmon, incisions of a "lampas" nature were made. The wounds were treated with a solution of hydrogen peroxide, performed thorough sanitation, necrotomy and drainage of the wound as far as possible.

If in the postoperative period there is an increase in temperature, tachycardia, pain in the area of the postoperative wound, there is no special improvement in the general condition of patients - this is an indication for a second revision of the wound to find the source. During the control ultrasound, a fluid formation was found in the depth of the soft tissues around the wound. In some cases, when the above studies are not possible, we used puncture methods of examination around the wounds. When the presence of fluid in the soft tissues was detected, the wound was enlarged.

The wound was treated with negative pressure at the 2nd stage of the purulent process.

**Clinical case:** Patient I., 57 years old. **Anamnesis:** The patient suffered from osteochondrosis of the lumbar vertebrae. Root pains. Novocain blockade is used to relieve the pain. **Diagnosis:** Phlegmon of the lumbar region, back and left posterolateral surface of the abdomen. Necrotic fasciitis. **Complication:** Sepsis. Concomitant diseases: Type 2 diabetes mellitus. CHD. Angina of tension, FC-2. Arterial hypertension 1st. Risk-4. Obesity-4 tbsp. (Figure 1-2).



**Fig. 1.** Stage I of treatment: dissection of phlegmon, excision of necrotic fasciitis. A staged necrotomy was performed



**Fig. 2.** Stage II of treatment-closure of the defect.

Applied vicryl sutures to the muscles and subcutaneous tissue, silk sutures to the skin. The tension of the seams is relaxed, the edges of the wounds are removed. Additional skin sutures between the previous ones. A vacuum therapy device is installed. Hospitalization for 52 days. On an outpatient basis. Dynamics reduction of exudate from 75 ml to 20 ml per day. After 7 days, the vacuum therapy device was removed. A month later, the vacuum therapy device was re-installed in the middle of the sewn wound with a length of 15 cm. The patient's condition is satisfactory.

### Conclusions

In the treatment of purulent – necrotic fasciitis of soft tissues in diabetes mellitus, early diagnosis and comprehensive adequate surgical treatment with step-by-step necrotomy is considered the most optimal method of treatment.

### REFERENCES:.

1. Sayfullo Abdullaev, Abduhomid Toirov Adham Ahmedov, Davlatshoh Jalolov. (2020). PROBLEMS OF SURGICAL TACTICS FOR THE TREATMENT OF DIABETIC FOOT SYNDROME. *International Journal of Advanced Science and Technology*, 29(05), 1836 - 1838. Retrieved from <http://sersc.org/journals/index.php/IJAST/article/view/10340>. [Accessed December 17, 2020]



2. Abdullaev S.A, Kurbanov, E. Y., Boymurodov A.O, & Abdullaeva L.S PROBLEMS OF DIAGNOSTICS AND TREATMENT OF SEPSIS IN DIABETES MELLITUS. DOCTOR'S BULLETIN, 6.
3. Abdullaev Sayfulla Abdullaevich , Babajanov Axmadjan Sultanbayevich , Kurbanov Erkin Yusufovich , Toirov Abduxomid Suvonkulovich , Abdullaeva Lola Sayfullaevna, Jalolov Davlatshoh Abduvokhidovich, Problems of Sepsis Diagnostic and Treatment in Diabetes Mellitus, *American Journal of Medicine and Medical Sciences*, Vol. 10 No. 3, 2020, pp. 175-178. <https://doi.org/10.5923/j.ajmms.20201003.09>.
4. Kurbanov E. Y., Ahmedov A. I., Babajanov A. S., Togaev K. R., & Toirov A. S. (2018). DIAGNOSTICS AND TREATMENT OF PURULENT-NECROTIC COMPLICATIONS IN PATIENTS WITH DIABETES MELLITUS. In *Youth and Health Science in the 21st Century* (pp. 418-419).
5. Abdullaev S.A., Babajanov A.S., Hamidov F.U., & Kurbanov E.Y. (2019). SURGICAL TACTICS FOR TREATMENT OF SEPSIS IN DIABETES MELLITUS. In *SCIENCE AND INNOVATION IN THE XXI CENTURY: CURRENT ISSUES, DISCOVERIES AND ACHIEVEMENTS* (pp. 190-194).
6. Abdullaev S. A., & Jalolov D. A. (2020). Features of the course of Fournier's disease in diabetes mellitus. *Science in the modern world: development priorities*, (1), 9-11.
7. Trevelin S. C., Carlos D., Beretta M., da Silva J. S., & Cunha F. Q. (2017). Diabetes mellitus and sepsis: a challenging association. *Shock: Injury, Inflammation, and Sepsis: Laboratory and Clinical Approaches*, 47(3), 276-287. <https://doi.org/10.1097/SHK.0000000000000778>