OUR EXPERIENCE IN THE TREATMENT OF FOURNIER'S DISEASE IN DIABETES MELLITUS

Abdullaev S.A.[1], Djalolov D.A.[2], Abdurakhimova A.F.[3], Valieva S.Sh.[4], Mukhammedova F.F.[5]

[1]Abdullaev Sayfulla Abdullaevich – Professor;
[2]Djalolov Davlatshokh Abduvokhidovich – Student;
[3]Abdurakhimova Amira Farrukhovna – Student;
[4]Valieva Sadokat Shokirovna – Student;
[5]Mukhammedova Fariza Farkhodovna – Student,
DEPARTMENT OF SURGICAL DISEASES OF THE PEDIATRIC FACULTY,
SAMARKAND STATE MEDICAL INSTITUTE
SAMARKAND, REPUBLIC OF UZBEKISTAN

Abstract: *Fournier's disease is a necrosis of the skin of the scrotum and genitals, characterized by the spread of the anterior abdominal wall as a result of anaerobic infections. The article presents the general concept, diagnosis and treatment of Fournier's disease, shows the results of treatment of 26 patients with Fournier's disease on the basis of the Samarkand City Medical Association from 2000 to 2020. As a result of the study, we have achieved a good effect in the treatment of Fournier's disease.*
Keywords: *diabetes mellitus, Fournier's disease, necrectomy, fasciitis.*

НАШ ОПЫТ ЛЕЧЕНИЯ БОЛЕЗНИ ФУРНЬЕ ПРИ САХАРНОМ ДИАБЕТЕ

Абдуллаев С.А.[1], Джалолов Д.А.[2], Абдурахимова А.Ф.[3], Валиева С.Ш.[4], Мухаммедова Ф.Ф.[5]

[1]Абдуллаев Сайфулла Абдуллаевич – профессор;
[2]Джалолов Давлатшох Абдувохидович – студент;
[3]Абдурахимова Амира Фарруховна – студент;
[4]Валиева Садокат Шокировна – студент;
[5]Мухаммедова Фариза Фарходовна – студент,
кафедра хирургических болезней, педиатрический факультет,
Самаркандский государственный медицинский институт,
г. Самарканд, Республика Узбекистан

Аннотация: *болезнь Фурнье представляет собой некроз кожи мошонки и половых органов, характеризующийся распространением передней брюшной стенки в результате анаэробных инфекций. В статье приведены общее понятие, диагностика и лечение болезни Фурнье, показаны результаты лечения 26 больных с болезнью Фурнье на базе Самаркандского городского медицинского объединения с 2000 по 2020 гг. В результате исследования мы добились хорошего эффекта в лечении болезни Фурнье.*
Ключевые слова: *сахарный диабет, болезнь Фурнье, некрэктомия, фасциит.*

UDC 616.353-002.4

Fournier's disease is referred to in the literature as "idiopathic scrotal gangrene", "Fournier's disease", " Fournier's gangrene» [1, 3, 6].

Fournier's disease is a necrosis of the skin of the scrotum and genitals, characterized by the spread of the anterior abdominal wall as a result of anaerobic infections [2, 5, 8].

There is little information about this disease in the literature and there is a lot of uncertainty in the etiopathogenesis, diagnosis and treatment [4, 7, 9].

Purpose of the research: identify the main causes of diseases in our conditions and choose the best methods of surgical treatment.

Materials and methods of the research: In the purulent-septic department of the Samarkand City Medical Association in 2000-2020, 26 patients with Fournier's disease were treated. Of these, 23 were men and 3 were women. The age of the patients was 32-65 years.

According to etiological factors, the disease was detected in 20 patients after ischiorectal and pelviorectal paraproctitis, in 3 after cystostomy, in 2 patients with paraurethritis and in 1 after bartholinitis. Of the 26 patients, 23 were diagnosed with type II diabetes, and 7 patients had a predisposition to alcoholic beverages.

The first clinical sign is inflammation of the skin of the genitals. At first, the skin turns red, and then begins to turn black. The transition to this state worsens the general condition of the patient, the body temperature rises. The development of necrosis continues for about 5-8 days and the condition of patients worsens. A clinic of intoxication appears and fasciitis is added to the purulent state and the pus spreads through the fascia into the perineum and to the anterior abdominal wall. In almost all the patients we observed, the onset of the disease was acute with an increase in body temperature to 38-40°With and in a state of deep intoxication. They complained of swelling and severe pain, sweating, and loss of appetite. On examination, redness and swelling in the scrotum area and within 3-4 days, signs of gangrene appeared.

An accurate diagnosis is made on the basis of clinical and laboratory studies. General and biochemical blood tests, determination of blood sugar. During a general examination during the development of the disease, the presence of crepitation along the fascia of the Collis and a purulent odor is due to the presence of an anaerobic infection. Ultrasound of the scrotum in the presence of inflammation and abscesses is the most important information for making a diagnosis.

The opinions of many authors in the treatment of Fournier's disease differ. Basically, there are different tactics on how to open a phlegmon and how and when to perform a necrectomy. In recent years, we have taken the following steps to treat Fournier's disease:

1. Prevention of the spread of anaerobic infections.

2. Open the phlegmon with large incisions.

3. Optimal wound drainage.

4. Necrectomy.

5. Wound treatment with oxygen-containing antiseptics - hydrogen peroxide, potassium permanganate, potassium, sodium hypochlorite.

6. Optimal antibacterial therapy.

7. Stimulating the body's protective function.

8. Complete detoxification therapy.

Results of the research and their discussion: Some surgeons use conservative treatment at the beginning of Fournier's disease. It is preferable to perform a necrectomy after demarcation. We consider this tactic extremely dangerous. This is due to the fact that later surgical intervention leads to the rapid development of purulent necrosis and extensive areas of necrosis, the development of endotoxicosis and the spread of necrotic fasciitis to the anterior abdominal wall.

That is why we offer urgent operations, that is, the rapid opening and cleaning of the purulent-necrotic source. We believe that it is important not only to open the purulent-necrotic phlegmon, but also to ensure a good flow of oxygen to the purulent focus. In the presence of anaerobic infections, the soft tissues should be widely opened by multiple incisions, there should be no vacuum between the fascia and the muscles, and they should be well sanitized. In the presence of necrotic fasciitis and myonecrosis, excision of necrotic fascia and muscle should be performed.

For this purpose, we made long and wide incisions in a number of patients in the areas of the scrotum, perineum and anterior abdominal wall. Staged necrectomies were performed 4 times in 7 patients, 3 times in 5 and 2 times in 3 patients. Antibacterial therapy was carried out on the basis of a bacteriological study. We used fourth-generation cephalosporins, third-generation aminoglycosides, and metronidazole and fluoroquinolone for anaerobic infections. When the gas infection was detected, we used 150,000 ME of polyvalent anti-gangrenous serum. Of the anticoagulants, it is advisable to use heparin and klexan. To improve the rheological properties of the blood, rheopolyglucin and angioprotectors were used. As an immunomodulator, immunoglobulin, immunomodulin, and a 20% solution of tocopherol acetate were used to enhance the immunobiological properties of the body. In addition, some patients were prescribed anti-staphylococcal plasma and anti-staphylococcal gamma-globulin.

In the treatment of Fournier's disease, local (after opening the phlegmon) is performed to purify purulent foci. In the wound hydration phase, a 3% solution of hydrogen peroxide, dioxidine, and chlorhexidine was used. To accelerate the rejection of purulent-necrotic tissue, we used a mixture of levomicol ointment with loroben, proteolytic enzymes such as chymopsin, trypsin and chymotrypsin.

Conclusions: Thus, Fournier's gangrene is a very severe form of purulent-necrotic process, which requires a complex detoxification, broad-spectrum antibacterial, immunocorrective and active surgical treatment.

References

1. *Abdullayev S.A., Dzhalolov D.A.* Osobennosti techeniya bolezni Furn'ye pri sakharnom diabete // Nauka v sovremennom mire: prioritety razvitiya, 2020. № 1. S. 9-11.
2. *Aliyev S.A.O., Aliyev E.S.O.* Gangrena Furn'ye-Aktual'nyye aspekty staroy bolezni v svete sovremennykh predstavleniy o patogeneze // Vestnik khirurgii imeni I.I. Grekova, 2014. T. 173. № 2.
3. *Aliyev S.A., Rafiyev S.F., Rafiyev F.S. & Aliyev E.S.* (2008). Bolezn' Furn'ye v praktike khirurga. Khirurgiya. Zhurnal im. N.I. Pirogova (11). 58-63.
4. *Cherepanin A.I., Svetlov K.V., Chernov A.F., Barmin Ye.V.* Drugoy vzglyad na «Bolezn' Furn'ye v praktike khirurga». Khirurgiya 10. Zhurnal im N.I. Pirogova, 2010. S. 47-50.
5. *Abdullayev Sayfulla, Kurbonov Erkin, Dzhalolov Davlatshokh, Yuldashev Farrukh.* K¸andli diabetda yumshok¸ tŭk¸imalarning yiringli nekrotik yalliġlanishining sepsis asoratini davolash muammolari // TENDENTSII I PERSPEKTIVY RAZVITIYA NAUKI I OBRAZOVANIYA V USLOVIYAKH GLOBALIZATSII,2020. № 57. S. 445-447.
6. *Abdullaevich A.S. et al.* Problems of Sepsis Diagnostic and Treatment in Diabetes Mellitus //American Journal of Medicine and Medical Sciences, 2020. T. 10. № 3. S. 175-178.
7. *Abdullaev S. et al.* Features of Complex Surgical and Infusion Treatment of Sepsis in Diabetes Mellitus // Annals of the Romanian Society for Cell Biology, 2021. S. 2283-2288.
8. *Abdullaev S., Akhmedov A.T.A., Djalolov D.* PROBLEMS OF SURGICAL TACTICS FOR THE TREATMENT OF DIABETIC FOOT SYNDROME // International Journal of Advanced Science and Technology, 2020. T. 29. № 05. S. 1836-1838.

9. *Abduvoyitov B.B. et al.* Approaches to intestinal decompression during different appendicular peritonitis in children // Dostizheniya nauki i obrazovaniya, 2018. № 18. S. 92-95.
10. *Kurbanov E.YU. i dr.* DIAGNOSTIKA I LECHENIYe GNOYNO-NEKROTICHESKIKH OSLOZHNENIY U BOL'NYKH SAKHARNYM DIABETOM // Molodezh' i meditsinskaya nauka v XXI veke, 2018. S. 418-419.
11. Nimatov S.N., Tashkulov F.T., Akhmedov A.I. Khirurgicheskoye lecheniye gnoyno-septicheskikh ran sakharnogo diabeta // Molodezh' i meditsinskaya nauka v XXI veke, 2017. S. 372-373.
12. *Babazhanov A.S. i dr.* Usovershenstvovaniye diagnostiki i lecheniya sindroma diabeticheskoy stopy // INTERNATIONAL SCIENTIFIC REVIEW OF THE PROBLEMS OF NATURAL SCIENCES AND MEDICINE, 2019. S. 64-77.
13. *Kurbanov E.YU. i dr.* Nedostatki i puti usovershenstvovaniya v diagnostike i khirurgicheskom lechenii sindroma diabeticheskoy stopy // VESTNIK VRACHA. S. 15.
14. *Babazhanov A.S., Toirov A.S., Akhmedov A.I.* Gibridnyye tekhnologii i ekstrakorporal'nyye metody sorbtsionnoy detoksikatsii (obzor literatury)// Academy, 2020. № 4 (55).
15. *Babajanov A.S., Toirov A.S., Akhmedov A.I.* TACTICS OF TREATMENT OF THYROID NODULES BASED ON THE GRADING SCALE // Academy, 2020. № 4. S. 100-104.