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ANALYSIS OF EFFECTIVENESS OF ANTIBIOTICS IN RECURRENT TYPES OF ERYSIPELAS DISEASE IN SAMARKAND REGION

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INTRODUCTION. In recent years, in the clinical course of leprosy, severe forms with the predominance of intoxication syndrome have been observed, the number of complications has increased, and the younger generation of erysipelas has been observed. according to the analysis, the number of patients with bullous and hemorrhagic forms of erysipelas has been increasing in recent years. in recent years, cases of relapse of the disease have been frequent in patients (43,3%). antibacterial therapy is important in the etiopathogenetic approach to the treatment of erysipelas disease. the fact that the treatment regimens used in the treatment of erysipelas at the present time are insufficient both for the regression of the clinical symptoms in the acute period of the disease and for the prevention of its recurrence has prompted researchers to look for new methods of treatment, including the use of broad-spectrum antibiotics in combination with immunocorrectors in the treatment of the disease. nowadays, it is important to study the characteristics of the development of erysipelas, to improve the efficiency of treatment of patients, to improve diagnostic methods, to prevent the recurrence of the disease, and scientific and practical researches are important.

The problem of erysipelas is associated with a constant increase in the number of diseases among the population and does not have a decreasing trend [3,4,5,7]. Every year, about 100 million people in the world suffer from erysipelas. Erysipelas is a widespread infectious disease, which is treated in a polyclinic by doctors of various specialties (infectious diseases, therapists, surgeons, dermatologists, physiotherapists) [3,6]. Nowadays, it is observed that the localization of the pathological process is mainly in the legs, the recurrence of the disease (up to 60%), and the formation of chronic lymphovenous insufficiency with elephantiasis due to this disease leads to disability and a significant deterioration in the quality of life of patients. The disease is often noted at working



age [1,2,4,5,6]. Often, the disease occurs against the background of low immunity. Antibacterial therapy occupies the most important place in the complex treatment of patients with erysipelas. Penicillins play an important role in the etiotropic treatment of erysipelas disease. However, in recent years, the level of resistance to penicillin has continued to increase compared to *S. aureus*. Penicillin-resistant strains are sensitive to vancomycin, less sensitive to trimethoprim-sulfamethoxazole. Some progress has been made in the study of individual aspects of erysipelas, but some aspects of this pathology have not been sufficiently studied to date. Antibacterial drugs are not effective enough in the treatment of erysipelas disease, they do not prevent the recurrence of the disease, and in some cases, side effects of antibacterial drugs are observed. The therapeutic effectiveness of antibiotic therapy for erysipelas is limited in the early stages of the disease. In addition, in recurrent forms of erysipelas, the penetration of drugs into the site of inflammation becomes difficult due to the development of angiopathy and sclerotic processes in the skin. Depending on the severity of the disease and the frequency of recurrence, different types of antibiotics are used in the treatment of erysipelas: penicillins, fluoroquinolones, cephalosporins II, III and IV generations, macrolides. Thus, despite the existence of certain standards for the treatment of erysipelas, the treatment of this disease remains a problem. Therefore, we analyzed the effectiveness of antibiotics in recurrent types of erysipelas in Samarkand region.

The purpose of the study: to analyze the effectiveness of antibiotics in recurrent types of erysipelas in Samarkand region.

Materials and methods of research: The incidence of erysipelas was conducted between 2014 and 2019. The medical history of patients treated with the diagnosis of МКБ-А46.0 "erysipelas" at the Samarkand Regional Clinical Hospital of Infectious Diseases was analyzed retrospectively. The diagnosis was made on the basis of clinical, epidemiological and laboratory data.

During the study, 62 patients with erysipelas were analyzed. Out of the total number of examined patients, 66.4% are men, 33.6% are women. The age of the patients was mainly from 18 to 78 years. Distribution of patients by age: 18 - 25 (4.2%), 26 - 50 (5.6%), 51-60 (34.3%), 61-78 (22.5%). In women: 18-25 (7.9%), 26-50 (8.5%), 51-60 (8.5%), 61-78 (8.5%).

Research discussion: According to scientific publications, among patients with erysipelas, people who do physical work predominate, this situation was also reflected in our study. The disease was most often found in people engaged in



agriculture and outdoor active lifestyle (76.8%), less often (23.2%) among people engaged in mental work. In contrast to other studies, there was no seasonality of erysipelas in our study. Streptococcal infection can be a source of erysipelas infection in patients with tonsillitis, scarlet fever, and otitis. During our study, when analyzing the medical history of patients, it was found that in 23.4% of cases, they had contact with patients with tonsillitis, 19.8% with patients with scarlet fever, and 26.7% with patients with acute otitis detected, and in 1/3 cases the cause of the disease could not be determined. Microtrauma (35.6%), tonsillitis (35.7%) and purulent processes on the skin (28.7%) were the provoking factors in the primary diagnosis. Therefore, the erysipelas of patients with streptococcal infection plays a key role in the recurrence of the disease.

According to the order of the Ministry of Health of the Republic of Uzbekistan and the classification of V. L. Cherkasov (1986), patients were divided according to the local symptoms of the process: 22.8% of patients had the erythematous form of the disease, 47.6% erythematous-bullous, 29.6% were diagnosed with erythematous-hemorrhagic form. According to our data, bullous and hemorrhagic forms of the disease make up the majority of patients with erysipelas. Erythematous bullous and erythematous hemorrhagic forms of the disease were detected in elderly people with background pathologies such as diabetes mellitus, mycotic diseases, obesity, and varicose veins. In rare cases, patients with relapsing erysipelas received bicyclinotherapy, physiotherapy together with immunocorrective therapy within a year after the disease. It was found during the analysis that it helped to reduce the recurrence of the disease. In terms of disease severity, moderate and severe forms of the disease prevailed in patients (90.4%). Severe forms were mainly observed in patients with concomitant diseases. In patients under observation, the first observation of erysipelas was recorded in 56.7% of patients, and in 43.3% of patients, the disease was re-observed. A diagnosis of "recurrent erysipelas" can be made if there are at least three recurrences per year. From the anamnesis, 45.6% of patients are frequently sick with recurrent erysipelas, and in 54.4% of patients, recurrence of the disease was detected in rare cases. Exacerbation of chronic skin diseases, chronic tonsillitis, sinusitis, and increased stress were noted in patients with recurrent erysipelas.

According to the distribution of the local process, the local form of the disease was detected in 87.3% of the patients, and the migrated form of the disease was detected in 13.7% of the patients. According to the analysis, saramas - 27.6%,



legs - 47.6%, hands - 24.8%. Our data are consistent with those in the literature. In patients under investigation (100%), the disease started acutely, intoxication, fever, sleep disorders, regional lymphadenitis were observed (Table 1).

1-table

Main clinical and laboratory signs in erysipelas

№	Clinical signs	%
1.	Fever	92,8
2.	Fatigue	95,2
3.	Sleep disturbance	26,2
4.	Subfebrile body temperature 37-38 ⁰ C	11,4
5.	Increase in body temperature to 38.1 ⁰ – 39 ⁰ C	38,4
6.	Body temperature from 39.1 ⁰ C to 40 ⁰ C	39,4
7.	Headache	88,1
8.	Observation of pain, redness, fever, itching in the area of inflammation	100
9.	Regional lymphadenitis	95,2

95.2% of patients had intoxication, weakness, 92.8% had malaria, 88.1% had headache, 26.2% had sleep disorders. 95.2% of patients had intoxication, weakness, 92.8% had fever, 88.1% had headache, 26.2% had sleep disorders. Many patients complained of paresthesia, itching or local fever, mild pain in the damaged areas of the skin

An increase in temperature was observed in all patients. 11.4% of patients had a temperature of up to 38⁰C, 38.4% of patients had a temperature of up to 39⁰C, 39.4% of patients had a fever of 39.1⁰C to 40⁰C, 10.8% of patients had a temperature of 40⁰C and above.

According to many authors, 70-75% of patients with erysipelas have comorbidities. The frequency of their occurrence in patients with recurrent erysipelas is more than 90%, in patients with recurrent sarcomas - about 50%, and in patients with primary form of the disease, 30-32%.

In our research, 80.9% of the examined patients had the following comorbidities: anemia II-III level - 12.5% of patients, arterial hypertension - 13.4% of patients, chronic tonsillitis - 8.4%; chronic colitis - 3.9%; polyarthritis - 11.3%; obesity - 9.7%; varicose veins - 8.3%; ischemic heart disease - 18.4%; diabetes - 8.7%; foot mycosis 3.4%; liver cirrhosis - 7.8%; uterine fibroids - 4.2%.

In the general blood analysis, left shift of leukocytosis - 42.8%, acceleration of EChT - 42.8%, decrease of hemoglobin - 100% of patients were observed.



Bacteriological blood test gave a positive result in 25.6% of patients. Currently, due to the widespread use of antibiotic therapy in clinical practice, it is almost impossible to isolate streptococci from the skin inflammation in patients with scabies.

All patients underwent antibacterial, detoxification, desensitization and symptomatic therapy. Antibacterial therapy occupies the most important place in the complex treatment of patients with erysipelas. Penicillins are still used in the treatment of erysipelas. But even so, there are accompanying diseases, and in severe forms of the disease, antibiotics of the penicillin group did not give sufficient results. Parenteral therapy is prescribed in the severe course of the disease, in the development of complications (abscess, phlegmon, etc.). In the course of research, the following antibacterial agents have been widely used in recent years:

In the treatment of erysipelas, these antibiotics were used parenterally. Before the start of antibiotic therapy, the severity of the intoxication syndrome and the local manifestations of the disease in patients were compared (table No. 2).

Table 2.

The main symptoms of failure in the use of different antibiotic regimens

Used antibiotics	Clinical signs of erysipelas							
	Degree of intoxication		Skin hyperemia, sm		Bulls, sm		Swelling, sm	
	To begin with	After 7 days	To begin with	After 7 days	To begin with	After 7 days	To begin with	After 7 days
Amoxicillin/clavulanate, ampicillin or penicillin	3,1± 0,12	2,9± 0,1	8,9± 0,17	8,7 ±0, 16	7,6 ±0, 18	6,9 ±0, 19	2,9 ±0, 1	2,4 ±0, 09*
Macrolides	2,7± 0,1	2,5± 0,09	8,8± 0,19	7,3 ±0, 15*	7,9 ±0, 21	6,9 ±0, 2*	3,0 ±0, 08	2,5 ±0, 06*
Cefazolin and penicillins	2,9± 0,08	1,8± 0,09*	8,6± 0,2	7,3 ±0, 19*	7,4 ±0, 19	6,7 ±0, 27*	3,2 ±0, 1	2,6 ±0, 08*
Cefotaxime or ceftriaxone	3,0± 0,07	1,6± 0,07*	8,5± 0,14	6,1 ±0, 2*	7,9 ±0, 11	6,1 ±0, 21*	3,4 ±0, 2	2,3 ±0, 1*



Ceftriaxone sulbactam, cefaperazone sulbactam	3,1± 0,12	2,0± 0,1	8,9± 0,17	4,7 ±0, 16	7,6 ±0, 18	5,9 ±0, 19	2,9 ±0, 1	1,4 ±0, 09*
Cefepime or cefepime sulbactam	2,7± 0,1	1,9± 0,09	8,8± 0,19	4,3 ±0, 15*	7,9 ±0, 21	4,9 ±0, 2*	3,0 ±0, 08	1,2 ±0, 06*
fluoroquinolones	2,9± 0,08	1,8± 0,09*	8,6± 0,2	4,3 ±0, 19*	7,4 ±0, 19	4,7 ±0, 27*	3,2 ±0, 1	1,6 ±0, 08*

Note: The significance of the difference between the indicators before and after treatment: *- $r < 0.05$

In patients receiving ceftriaxone sulbactam, cefaperazone sulbactam, cefepime or cefepime sulbactam, fluoroquinolone series antibiotics (ciprofloxacin, ofloxacin, levofloxacin), a significant decrease in the diameter of intoxication and hyperemia of skin bullae was noted. A significant decrease in these indicators was not observed in patients receiving penicillin

Comparative analyzes showed that during the course of the disease, when using ceftriaxone sulbactam, cefaperazone sulbactam and fluoroquinolone series of antibacterial drugs, rapid positive dynamics were observed and a decrease in the severity of the intoxication syndrome was determined. When penicillin, amoxicillin, macrolides were used, the effectiveness we expected was not observed. The severity of the intoxication syndrome decreased slightly, but the reduction of local symptoms of the disease was not noted. Penicillin was the least effective in our studies. During treatment with penicillin, the intoxication syndrome, hyperemia and the diameter of the bullae remained almost at the same level. During the research, it was noted that penicillin, recommended as a first-line drug, is less effective for the treatment of patients with sarcoid. ceftriaxone and cefaperazone showed the greatest effectiveness in the treatment of sulbactam erysipelas. These drugs reduce the clinical manifestations of the disease.

Summary: It is necessary to correctly choose systemic antibiotics in the treatment and prevention of erysipelas. At the same time, in order to prevent the recurrence of the disease, it is recommended to treat additional diseases and use immunocorrective therapy, bicillin therapy, and physiotherapy.

In recent years, in the course of research, in cases where the penicillin group was not effective enough in severe forms of the disease, ceftriaxone and cefaperazone sulbactam fluoroquinolone group antibiotics also gave good results.



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