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CLINICAL CHARACTERISTIC OF CONTEMPORARY SCARLET FEVER IN CHILDREN

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Abstract Scarlet fever as the main disease of streptococcal etiology still remains a serious epidemiological and clinical problem. The incidence of scarlet fever in recent years is low, but often manifests itself of in children outbreak groups. The widespread use of antibacterial drugs resulted in predominance of mild and moderate forms of the disease. However, the importance of streptococcal infection in the formation of chronic lesions of the nasopharynx is undeniable. There is a significant risk of allergization by streptococcus and the development of lesions of the heart and kidneys [1,2]. Severe septic complications and even deaths are also possible [3].

Keywords Scarlet fever, Rash, Lacunar tonsillitis

1. Introduction

Streptococcal infection, remaining one of the uncontrolled infections, is still one of the most acute health problems in all countries, which is proved by the widespread prevalence of group A streptococci and the great socio-economic damage caused by this pathology [2,6]. According to WHO data, 18.1 million people suffer from serious diseases caused by group A streptococci, of which 15.6 million people suffer from - rheumatic heart disease. About 1.8 million of new cases are registered annually, more than 500,000 people die, in addition there are more than 11 million cases of streptoderma and 616 million cases of pharyngitis [4,5]. Streptococcal tonsillitis in the structure of acute respiratory diseases takes the second place after influenza [1,2,6]. The incidence rates of scarlet fever in Uzbekistan also do not tend to decrease [4]. In recent years, there has been a mild course of scarlet fever, but there is still a high risk of serious septic complications development and even lethal outcomes. [3,5]. All of the above indicates the need to study the clinical and epidemiological features of streptococcal infection (scarlet fever, tonsillitis) both in sporadic morbidity and in the development of foci in organized children's groups.

2. Purpose of the Study

Analysis of clinical features course of scarlet fever in children its diagnostic potential in present-day conditions and evaluation of the effectiveness of treatment of patients http://journal.sapub.org/ajmms with scarlet fever in a hospital setting.

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3. Materials and Methods of Research

We carried out retrospective analysis of 192 children, ill scarlet fever, who were hospitalized at the Samarkand Regional Clinical Infectious Diseases Hospital from 2016 to 2020. All patients involved in the research underwent comprehensive clinical and laboratory studies in accordance with current standards, which included a clinical blood test, a general urinalysis, inoculation of mucus from the oropharynx for hemolytic streptococcus, and, according to indications, the determination of CRP, sialic acids, proteinogram, ECG.

4. Results and Discussion

For the period from 2016 to 2020, there were observed 192 (100%) patients with scarlet fever aged 9 months to 18 years in the Samarkand Regional Infectious Diseases Clinical Hospital. The patients were distributed by age as follows: 0.5% - children under 1 year old, 28.1% - from 1 to 3 years old, 4-7 years old - 51.0%, 10.4% - children from 8 to 12 years, 9.9% - from 13 to 18 years. When studying the terms of hospitalization, 47.4% of patients were hospitalized on days 1-2 of illness, 32.8% on days 3-5 of illness, 19.8% of patients after 6 days of illness, which was regarded as late hospitalization. In most cases, this was due to the onset of other infectious diseases, in particular ARVI, or treatment for a different diagnosis. When studying the primary diagnosis of patients: 67.7% of

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359 those who directly visited the hospital were diagnosed with scarlet fever. However, 32.3% of patients with scarlet fever received prehospital treatment in other hospitals with diagnoses - ARVI, lacunar tonsillitis, an allergic condition, after which they were admitted to the clinic.

In all children, the disease began acutely and was characterized by a typical scarlet fever, cyclic flow. In most children (86.5%) body temperature increased from 37.1° to 39.6°C and remained normal in 13.5% of patients. Since the onset of the disease, 58.9% of patients complained of a sore throat, headache, malaise, fatigue, decreased appetite, nausea, and vomiting. All patients had acute tonsillitis syndrome with hypertrophy of the tonsils and hyperemia of the oral mucosa, as well as an increase in regional lymph nodes. In 1/3 of patients (32.8%) the appearance of a rash on the body was the first sign of this disease, on the 1st-2nd day it appeared in 76.6% of persons, on the third day - in 23.4%. The rash was localized mainly on the flexion surfaces of the body. All children developed a typical small punctate rash within a few hours. Rarely, small papules and petechiae were observed against its background. In 87.5% of patients, the rash appeared on a hyperemic background of the skin, and only in 12.5% of patients the rash was on an unchanged background of the skin. The duration of the rash elements ranged from 3 to 6 days.

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In 27.6% of patients, Filatov's symptom characteristic of scarlet fever ("pure" nasolabial triangle), reddening of the lips and hyperemia of the cheeks was observed. In the period of recovery (from 8 to 10 days of illness), 16.1% of children had tingling of varying severity in the pads of the hands and feet, in the area of the heels.

In most cases (97.4%), a typical course of scarlet fever was observed, while the atypical form (extra buccal) was found only in 2.6% observed cases. The severity of the course of the disease was assessed based on the severity of symptoms of intoxication and local changes. At the same time, the criteria for the severity of erythema were studied depending on the general condition of the patient, the degree of increase in body temperature, the severity of symptoms of intoxication, changes in the oropharynx, and the nature of the rash. So, a mild form of scarlet fever was observed in 22.4% of patients, a moderate form - in 76.6%, a severe form - in 1.0% of patients.

It should be noted that the disease proceeded with the development of septic complications in 12.5%, of which otitis media developed in 9.9% of cases, and paratonsillar abscess developed in 2.6% of cases. Complications occured with late prescription of antibacterial drugs (81.6% on the 3rd-4th day of illness) and untimely hospitalization (18.4%). According to a number of authors [4], the frequency of complications of scarlet fever remains quite high - 19.2%, which is mainly caused by defects in the antibacterial treatment of patients at home, which coincides with our data.

The criterion for laboratory diagnosis of scarlet fever was screening for the presence of hemolytic streptococcus in the pharynx in all patients admitted to the hospital. The diagnosis of scarlet fever was confirmed bacteriologically in 26.7% of those examined. The low percentage of identification of the pathogen is explained by the fact that bacteriological examination was carried out against the background of antibacterial therapy, previously started on an outpatient basis, since almost half of the patients with scarlet fever were hospitalized in the late stages of the disease.

The general blood test in the acute period of the disease revealed leukocytosis (25.4%), leukopenia (4.2%); relative neutrophilia (17.6%), relative neutrophilia with a stab shift to the left (26.8%), eosinophilia (35.9%). In the study of ESR the values were within the normal range in 36.5% of patients, in 36.7% of patients they increased to 20 mm/h, and in 26.7% of patients to more than 20 mm/h.

The treatment of patients with scarlet fever was carried out in accordance with the current standards, it was complex and included a regimen, diet, etiopathogenetic therapy. Antibacterial therapy in 37 patients (19.3%) was started before hospitalization. 56.8% of all patients who received treatment before admission to the clinic took penicillin, erythromycin or ampicillin, in other cases - macropen, rulid, lincomycin. In the hospital, 87% of patients received penicillin intramuscularly. The duration of the course was, on average, 4±0.3 days for a mild course, 6±0.2 days for a moderate course, and 9±0.3 days for a severe course. Other antibacterial drugs (cefotaxime, cefazolin,

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lincomycin) were prescribed in 12.5% of cases due to past intolerance to penicillin. Due to the lack of a therapeutic effect from the introduction of penicillin and repeated inoculation of hemolytic streptococcus, 14 patients (7.3%) needed a second course of antibiotic therapy, while using erythromycin, cefazolin, gentamicin. This therapy was carried out mainly in patients with complications or concomitant bacterial pathology.

The vast majority of children (86.5%) were discharged from the hospital on days 9-11 of the disease with recovery under the supervision of a district pediatrician. On the 12-18th day of illness, 13.5% of patients were discharged due to the de/*velopment of early complications and layering of concomitant diseases.

The results of the analysis confirm the opinions of researchers that scarlet fever at the present stage occurs with a predominance of moderate and mild forms of the disease, proceeds typically with the preservation of all clinical manifestations characteristic of this disease.

5. Conclusions

1. Based on the above data, in modern conditions scarlet fever in most cases (97.4%) proceeds typically and retains all the clinical manifestations characteristic of this disease. The greatest number of cases of the disease was registered in the age group of children from 1 to 7 years.

2. During the analyzed period (2016-2020) of observation, the disease proceeded mainly in moderate and mild form - 99% and only in 1% in severe form. 360 Tirkashev Otabek Saidovich et al.: Clinical Characteristic of Contemporary Scarlet Fever in Children

3. Due to the low percentage of bacteriological detection of hemolytic streptococci (26.7%) and the clear severity of typical clinical manifestations of the disease, clinical diagnostics remains the main method for confirming the diagnosis of scarlet -----fever in modern conditions.

4. The frequency of septic complications in scarlet fever was 12.5%, the cause of which was the absence or inadequacy of antibiotic therapy at home, late prescription of antibacterial drugs and untimely hospitalization.

REFERENCES

[1] Balabanova P.M., Grishaeva T.P. Throat infection - a modern view on diagnostic methods and principles of therapy for A-streptococcal infection of the pharynx // Consilium medicum. - 2004. -V.6. - No. 10. - p. 23-25.

[2] Belov A.B. A-streptococcal tonsillitis: modern aspects of antibacterial therapy // Pediatric pharmacology: Scientific and practical journal / Russian Union of Pediatricians, GEOTAR Publishing Group. - M., 2007. - V.4. - No. 3. - p.58 - 66.

ISSN 2181-3187

[3] Briko N.I., Zhuravlev M.V., Pronsky A.V. Antibiotics in the culture of group A streptococcus // Journal of Microbiology and Infectious Diseases / Ministry of Health of the Russian Federation. - M.: Medicine, 2004. - No. 6. - p.54-56.

[4] S.A. Nizomova, B.M. Tadjiyev, Features of diagnostics and treatment of scarlet fever at the present stage, Journal of Biomedicine and Practice 2020, Special issue, p. 554-557.

[5] Dorofeev D.A. Resistance of strains of hemolytic streptococcus to antibiotics in children with various lymphocytes // Bulletin of the Russian State Medical University. - 2006. - No. 2. - p.279.

[6] Uralov Sh.M., Zhuraev Sh.A., Israilova S.B. "On the Impact of Environmental Factors on the Quality of Life and Health of Youth" Vol. 1 No. 3 (2022): SO'NGI ILMIY TADQIQOTLAR NAZARIYASI, N3, 2022/9/13, pp. 6-13, https://bestpublication.org/index.php/sit/article/view/766/741

[7] Soxiba Israel, Shavkat Jurev, & Dilfuza Amanova. (2024) Establishment of primary prevention in medical institutions. Лучшие интеллектуальные исследования, 13(5), 125-129. Retrieved from http://web-journal.ru/index.php/journal/article/view/364

[8] Zhuraev Sh. A., Israilova S. B., Uralov Sh. M. Materials of the scientific and practical conference., 20 (2020).

[9]Uralov Sh.M., Juraev Sh.A., Israilova S.B. "On the Impact of Physical Education Classes on the Quality of Life of Students" Vol. 1 No. 3 (2022):