

Support of the Immunomodulator Hepon in Patients with Skin Leukemia in the Blood Analysis of Changes in V-lymphocytes and Natural Killer Cells

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Abstract Observations were conducted in 72 patients with skin (zoonosis) leukemia aged 1 to 44 years old. The diagnosis of skin leukemia in all patients was confirmed by clinical, epidemiological and parasitological method. When patients were given the Hepon drug locally and in general, the effect of V-lymphocytes on the amount of V— lymphocytes— (SD19+) relative and absolute indicator in the blood and the changes in the absolute and relative indicators of the amount of natural killer cells-(Natural killer cells-NK-SD16+) in the blood were analyzed. 1-to drink the Hepon immunomodulator in 18 patients in the control group, 2-to rub the Hepon immunomodulator into the injured area in 28 patients in the control group, the main group was used to rub and drink the Hepon immunomodulator locally on the wounds in 26 patients. When the results of local and general application of the drug Gepon were studied separately, the effect of V-lymphocytes in the blood-(SD19+) on the relative and absolute index and the changes in the absolute and relative indices of the amount of natural killer cells— (Natural killer cells— NK-SD16+)in the blood was significant.

Keywords Zoonosis leishmaniosis, Hepon immunomodulator, V-lymphocytes (SD19+), Natural killers (NK-SD16+)

1. Introduction

The endemic and in some cases epidemic appearance of skin leukemia, which for many years has become relevant among the countries of the Middle, West, East, north, south of Asia, has caused and is causing economic damage among many countries. Seasonal occurrence and long-term survival of the disease cause social problems among the population. Since the foci of this disease were rodents living in vast steppes and steppes, and the flies that carried it, the preventive measures of this disease were not enough. For the treatment of the disease for a short period of time, the ongoing treatment is not effective enough. The fact that the production of drugs that affect leukemias and are less harmful is not established is also one of the pressing problems [5,6,8,9,10].

In recent years, the increase in hot weather in the world has led to an increase in the geography of the disease and the lengthening of the season [1,4].

When the results of local and general application of the drug Gepon were studied separately, the effect of lymphocytes on the Absolutes and relative indicators of the blood was significant. It was found that the effect of the drug Gepon on the relative and absolute index of lymphocytes in the blood was more pronounced in relation to drinking and

drinking only in patients recommended for 15-16 days locally and only in patients recommended for 15-16 days locally [1,19].

According to the results obtained, the positive effect of local application of methylene blue with ALT-Vostok model-03 apparati and Gepon immunomodulator correlated the nodal and erosive stages of zoonosis leukmaniasis, reducing the duration of the ulcer period, the overall period [2].

The application of laser therapy into the vein in patients with zoonosis leukemia did not give negative effects. On account of its positive effect on the amount of cytokines, wound healing accelerated and caused a faster transition to the scarring period [3,7].

Increased migration of Tourism and the working population among the population also plays an important role in the spread of the disease in the future [11].

2. Purpose of Work

1. To determine the effect of Gepon immunomodulator on the amount of V-lymphocytes (SD19+) relative and absolute indicator in the blood and the changes in the rate of absolute and relative indicators of the amount of natural killers (NK) (SD16+) in the blood during the pre-injury period and the period of injury in patients with skin leukmaniasis.

2. To determine the local application of the Hepon immunomodulator to the injured area and its effectiveness since the injury period in patients with skin leishmaniasis, the effects of V-lymphocytes in the blood— (SD19+) on the relative and absolute indicator amount and the changes in the absolute and relative indicators of the amount of natural killers— (NK) (SD16+) in the blood.
3. To determine the effect of local and ingesting of Gepon immunomodulator on the relative and absolute rate of V-lymphocytes— (SD19+) in the blood and the changes in the absolute and relative rates of natural killers - (NK) - (SD16+) in the blood from the period of injury in patients with skin leukemia.

3. Materials and Methods

Studies were conditioned in 72 patients with zoonotic leishmaniasis aged 1 to 44 years. The diagnosis of zoonotic leishmaniasis was confirmed by clinical, epidemiological and parasitological methods.

Changes in the relative and absolute number of B-lymphocytes in the blood, as well as natural killer cells (NK-SD16+) in the local and general use of the immunomodulator Gepon in patients with zoonotic leishmaniasis were analyzed.

The immunomodulator Gepon was used orally in 18 patients of the first control group, rubbing on the ulcer focus in 28 patients of the second control group, and in the form of rubbing and orally in 26 patients of the main group. In a separate study of the results of local and general use of Gepon, the effect on the absolute and relative values of B-lymphocytes and natural killer cells (NK) in the blood was significant.

The synthesis of antibodies against any antigen of the hepon infectious etiology. The drug significantly increases the effectiveness of immunity, protecting against various infections and conditionally-pathogen microorganisms. In addition, pyids have antiviral activity in human cells infected with viruses, have antiviral activity against hepatitis C, Types 1 and 2 of herpes, rabies, sexually transmitted infections, and can be used in acute purulent diseases as well as in the treatment of postoperative infections [12].

The effectiveness of Gepon immunomodulator has been studied in the treatment of acute purulent surgical infection of soft tissues in experimental and clinical conditions [13,14,23].

Leukemias form highly altered vacuoles within the phagocytes, retaining their reproduction and endurance characteristics [15,16,21,22].

Often, violations of cytokine transmission in the cell and other methods of signaling in order to prevent the invasion of phagocytes are strategies for the survival of parasites.

After the parasites enter the macrophages, each of them has its own way of reducing macrophage activity. Some types of leukemia alter the communication transmission

system of macrophages that infect them, or stop the production of cytokines and microbicide molecules (nitrogen oxides, types of active oxygen) and disrupt the manifestation of antigenicity [16,17,18,19,20].

4. Results and Discussion

To determine the effect of V-lymphocytes in the blood— (SD19+) on the relative and absolute indicator amount by giving the Hepon immunomodulator from 10 mg to 1 mg for 15-16 days prior to injury and during the period of injury in 18 patients with skin leishmaniasis and to determine the changes in the absolute and relative indicators of the amount of.

To determine the effect of Gepon immunomodulator on the relative and absolute rate of V-lymphocytes (SD19+) in the blood by local application of 2 mg to the injured area and the changes in the absolute and relative rates of natural killers (SD16+) in the blood (2-control group) in 28 patients with skin leukemia.

To determine the effect of V-lymphocytes (SD19+) on the relative and absolute indicator amount in the blood by local application of 2 mg to the injured area and the changes in the absolute and relative indicators of the amount of natural killer cells (Natural killer cells-NK-SD16+) in the blood (the main group of patients) in 26 patients with skin leukemia.

The results obtained: 72 patients aged 1 to 44 years with confirmed diagnosis of leishmaniasis of the skin using clinical, laboratory and epidemiological methods were studied in the summer-autumn of 2018-2021 in the studied regions of Bukhara region. In them, the effect of the drug Gepon on the relative and absolute indicator amount of V-lymphocytes— (SD19+) in the blood when given locally and in general, and the absolute and relative indicators of the amount of natural killers — (SD16+) in the blood were analyzed.

In order to clarify the results and determine the changes in the dynamics, the influence of V-lymphocytes in the blood on the relative and absolute indicator amount (SD19+) and the absolute and relative amount of natural killer cells— (Natural killer cells— NK-SD16+) in the blood was determined on 1-2 day of the start of treatment procedures and on 15-16.

After 1-2 days of administration of the drug Gepon in patients of the 1-control group for the period from 10 mg to 1-time administration of the drug V— lymphocytes— (SD19+) relative rate was $22.60 \pm 0.74\%$, the absolute rate was $0.42 \pm 0.03 \times 10^9/l$, the relative amount of natural killers - (SD16+) was $14.8 \pm 0.60\%$ and the absolute.

After 15-16 days of application of the drug Gepon to drink 10 mg 1 time, the relative content of V-lymphocytes (SD19+) was $26.60 \pm 0.74\%$, the absolute content was $0.64 \pm 0.02 \times 10^9/l$, the relative content of natural killers (SD16+) was $18.5 \pm 0.40\%$ and the absolute content was $0.56 \pm 0.02 \times 10^9/l$.

After 1-2 days of local administration of the drug Gepon in patients of the 2-control group from 2 mg to 1 mg, the

relative index of V— lymphocytes— (SD19+) was 16,60±0,6%, the absolute index was 0,32±0, 03X10⁹/l, the relative amount of natural killers - (SD16+) was 15,4±0,3% and the absolute.

In patients of the 2-control group, the relative indicator of V— lymphocytes— (SD19+) was 21,4±0,4%, the absolute indicator was 0,38±0, 03X10⁹/l, the relative amount of natural killers - (SD16+) was 16,5±0,3% and the absolute amount was 0,34±0, 02X10⁹/l in 15-16 days of 1-local administration of the drug Gepon.

In patients with skin leukmaniasis, the main group was taken to give Gepon immunomodulator to drink from 10 mg to 1 mahal, and in 1-2 days of local administration from 2 mg to 1 mahal to the injured area, the relative index of V-lymphocytes— (SD19+) is 26,8±0,84%, the absolute index is 0,62±0, 04X10⁹/l, natural killers— (SD16+), made up 0,2x10⁹/L.

In patients with skin leukmaniasis, the main group was taken to give Gepon immunomodulator to drink from 10 mg to 1 mahal, and in 15-16 days of local administration from 2 mg to 1 mahal to the injured area, the relative index of V-lymphocytes— (SD19+) is 28,4±0,64%, the absolute index is 0,72±0, 02X10⁹/l, natural killers— (SD16+) it was±0, 02x10⁹/L.

The effect of V-lymphocytes and natural killers on the relative and absolute amount when the drug Gepon is used.

Groups 1-patients of the control group 2-patients of the control group main group.

Disease periods and applied drugs for the period from 10 mg to 1 mahal for the period from injury 1-2 days after administration of the drug Gepon (18 patients) for the period from 10 mg to 1 mahal for the period from 15-16 days after administration of the drug gepon (18 patients) for the period from 2 mg to 1 mahal for the) to give the gepon immunomodulator from 10 mg to 1 Mahal drink and indication for 1-2 days of local administration of 2 mg to 1 mahal to the injured area (26 patients) for the administration of Gepon immunomodulator from 10 mg to 1 mahal and indication for 15-16 days of local administration of 2 mg to the injured area (26 patients).

Relative index of V-lymphocytes (SD19+) 22,60±0,74% 26,60±0,74% 16,60±0,6% 21,4±0,4% 26,8±0,84% 28,4±0,64%.

V-lymphocytes - (SD19) absolute index 0,42±0, 03X10⁹ / l 0,64±0,02X10⁹/l 0,32±0,03X10⁹ / l 0,38±0,03X10⁹ / l 0,62±0,04X10⁹ / l 0,72±0,02X10⁹ / l.

Natural killers-CD16+ (NK) relative indicator 14,8±0,60% 18,5±0,40% 15,4±0,3% 16,5±0,3% 18,8±0,6% 24,8±0,6%.

Natural killers-CD16+ (NK) absolute indicator 0,34±0,02X10⁹ / l 0,56±0,02X10⁹ / l 0,18±0,02X10⁹ / l 0,34±0,02X10⁹ / l 0,54±0,02X10⁹ / l 0,68±0,02X10⁹ / l.

5. Conclusions

When the results of local and general use of the drug

Gepon were studied separately, the effect of V-lymphocytes (SD19+) on the relative and absolute indices of the blood was significant. It was found that the effect of V-lymphocytes in the blood (SD15+) on the relative and absolute indices was evident in relation to the intake of the drug Gepon and drink only in patients recommended for 19-19 days, and only in patients recommended for 15-16 days.

Even when the effect of the Geapon immunomodulator on the amount of natural killers (NK) (SD16+) in the blood was studied, the effect of the number of natural killers (NK) (SD16+) on the relative and absolute indices was higher in the patients of the main group compared to the patients of the 1st and 2nd groups.

Reliably ($R < 0.05 < 0.001$) changes of the above indicators were determined.

The simultaneous administration of the Hepon immunomodulator to the injured area and drink for 15-16 days to patients with skin leukemia leads to an increase in the amount of V-lymphocytes and natural killers in the blood, in place of which they accelerate the formation of cellular and humoral immunity against the disease.

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