



RESULTS OF THE STUDY OF WOMEN'S IMMUNE SYSTEM IN INFECTIOUS DISEASES OF SMALL BELLY ORGANS

Olimova Nasiba Ismatillayevna,¹Mustafayeva Feruza Abulovna,²Sohibova Zarina Ortiqovna.³

1 Bukhara State Medical Institute named after Abu Ali ibn Sino, Republic of Uzbekistan, Bukhara,

Article history:	Abstract:
<p>Received: September 11th 2022</p> <p>Accepted: October 11th 2022</p> <p>Published: November 17th 2022</p>	<p>Inflammatory disease of the small pelvic organs is the study of the immune system of women, the analysis of its results. It was found that the decrease in T-lymphocytes showed the development of T-immunodeficiency in the immune system of sick women; A significant decrease in CD4 + cells relative to the control group and a reliable increase in CD8 + cells showed a significant increase in immune system activity. The relative and absolute amounts of CD25 + - and CD95 + - cells varied in different directions. A significant increase in the mean number of CD16 +-cells by 1.93-2.02 showed a significant increase in the role of these cells in the immune response. In women diagnosed with pelvic inflammatory disease, the relative and absolute amounts of CD38 + and CD23 + cells were significantly higher than in the control group, with 1.27 and 1.86 times the relative values and 1.21 and 1.78 times the absolute values, respectively.</p> <p>The goal is to study the indicators of the female immune system in inflammatory diseases of the organs of the small pelvis, interpret and analyze its results.</p> <p>Material and methods. A total of 102 women of fertile age (19-49 years old) living in cities and villages of Bukhara region were involved in the research. All of them became those who were treated in the gynecology department of the Bukhara City maternity complex. Healthy women were included in the control group, who were made sure that no symptoms of (IDSPO) were observed in the last 6 months.</p> <p>Conclusions. The amount of leukocytes in the 1-2 days when the organism of patients women observed in the (IDSPO) fell to the stasionar in the immune system was convincingly higher than the indicators of the control group, a decrease in the relative indicators of lymphocytes was observed.</p>

Keywords: Inflammatory diseases of the small pelvic organs, female immune status, secondary immunodeficiency.

RELEVANCE Inflammatory diseases of small pelvis organs are a group of diseases of the upper parts of the female reproductive tract and consist of independent nosological units. They include endometritis, salpingitis, oophoritis, Tubo-ovary abscess and groin peritonitis[4, 9, 14].Lactobacillus spp and Bifidobacterium spp of female vaginal microorganisms. all other representatives, except those, are involved in the inflammatory process [1].

In subsequent years, an increase in the level of occurrence of Inflammatory diseases of small pelvis organs in all countries of the world is noted. In the UK, the number of women who have been observed 20-24-year-old inflammatory diseases of small pelvis organs in the last 10 years has increased by 1.5 times, it is not observed if there is a downward trend. In developing countries, inflammatory diseases of small pelvis organs has been shown to reach up to 94% of sexually transmitted diseases [12]. In the RFinflammatory diseases of small pelvis organs

accounts for 28-34% of gynecological pathology. Despite the development of modern medicine, they have no tendency to decrease. Examples of causes of reproduction are sexually transmitted diseases (60%), intrauterine contraceptives, abortions (30%), intrauterine diagnosis and treatment (20%) [2, 5].

The immune system is known to provide special and non-special resistance of the body from external and internal factors that can cause pathological changes[3, 6, 8, 13]. Considering that different pathogens with different levels of pathogenicity cause(IDSPO), it becomes clear that the immune system responds differently to this antigen stimulus. In addition, in some cases, the causative agents of these purulent-inflammatory diseases can also occur in the form of an association of microorganisms, a condition that makes this disease difficult to pass and cure[7, 10, 11].

.Patient women were diagnosed with the following clinical diagnoses: bilateral acute salpingooforitis (36.3%, n=37); bilateral acute salpingitis (17.6%,



n=18); right-sided acute salpingooforitis (15.7%, n=16); right-sided acute salpingitis (8.8%, n=9); left-sided acute salpingooforitis (10.8%, n=11); left-sided salpingitis (10,8%, N=11). The state of the immune system of healthy and sick women organism was conducted on the expression of CD-differentiating and activating antigens. The following markers of immunocompetent cells have been identified: CD3+-, CD4+-, CD8+-, CD16+-, CD23+-, CD25+-, CD38+-, CD71+-, CD95+-lymphocytes. CD receptor expression in a socket formation reaction using LT series monoclonal antibodies produced by sorbent LLC (RF)

using garib F.Yu. carried out according to the method (1995).All research was carried out at the Institute of Immunology and Human Genomics of the UZR FA. Statistical processing of the results obtained is carried out using traditional variational statistical methods.

OBTAINED RESULTS AND DISCUSSION. The results obtained during the study showed that the total number of leukocytes in the blood of women with (IDSPO) was 1.19 times higher than the data obtained from healthy women in the control group (Table 1)

Enzyme immunoassay indices of immunological parameters in womens, M±m

Indicators	Control, n=15	IDSPO, n=102
Leukocytes, 10 ⁹ /l	5952±61	7071±107*↑
Lymphocytes, %	29,86±1,07	24,05±1,08*↓
Lymphocytes, 1 mgl in the blood	1777±65	1701±116↔
CD3+- cells, %	61,42±1,35	46,20±0,39*↓
CD3+- cells, 1 mgl in the blood	1091±88	786±45*↓
CD4+- cells, %	30,56±0,60	28,32±0,41*↓
CD4+- cells, 1 mgl in the blood	543±39	482±48↔
CD8+- cells, %	22,39±0,78	25,34±0,38*↑
CD8+- cells, 1 mgl in the blood	398±51	431±44*↑
ИРИ, бирлик	1,36±0,01	1,12±0,01↓
CD71+- cells, %	21,43±1,13	25,95±0,82*↑
CD71+- cells, 1 mgl in the blood	381±73	441±95↔

Note: reliability of differences in relation to the data of the control group; ↑,↓ - direction of changes in relation to the control group; ↔ - reliability does not exist.

The results of the studies showed that the relative amount of lymphocytes in sick women decreased by 1.24 times compared to data from the control group (R<0.05).On the surface of CD3+-the study of the relative and absolute amount of lymphocytes that carry cell markers showed that they had a reliable change in relation to data from the control group (R<0.05). CD3+ - relative and absolute indicators of cells decreased by 1.33 and 1.39 times, respectively, compared to the control group (R<0.05).

The relative amount of CD4+-cells in patient women observed in (IDSPO) is to a lesser extent, but more reliable than the data of the control group, decreased by 1.08 times (R<0.05). But a reliable difference in absolute indicators of these cells between the compared groups has not been established (R>0.05).

In contrast to T-chelper/inducers (CD4+-cells), T-suppressors/cytotoxic lymphocytes (CD8+-cells) both relative and absolute values increased equally reliably (R<0.05). Relative indicators in patients reliable growth reached 1.13 times, and compared to absolute



data-1.08 times. In our case, IRI was equal to 1.12 ± 0.01 units in sick women, while in healthy women included in the control group, this figure was equal to 1.36 ± 0.01 units ($R < 0.001$). IRI's reduction of 1.21 times in sick women compared to healthy ones showed that there is a criterion in the immune system that indicates the presence of functional tension as a result of a purulent-inflammatory process. It was found that the relative amount of CD71+-cells was convincingly reduced in patient women by 1.21 times compared to healthy ones ($R < 0.05$). An increase in the quantitative index of CD71+-cells was observed, albeit not at a convincing level ($R > 0.05$).

Thus, during the period of onset of the disease in the immune system of the organism of patients women who were observed (IDSPO), on the 1st-2nd day, the following specific features were identified: first, the total amount of leukocytes was convincingly higher than the indicators of healthy women of the control group, this circumstance was explained by the development of a purulent-inflammatory; secondly, there was a decrease in the relative indicators of lymphocytes, which was explained by the direct and indirect effect of pathogens on the body's immune system; thirdly, a decrease in the relative and absolute amount of T-lymphocytes showed the development of T-immunodeficiency; fourth, a statistically convincing decrease in patient women compared to the CD4+-cell control group and a convincing increase; fifth, a convincing decrease in IRI in relation to the indicators of the control group was interpreted as one of the main criteria for the development of secondary immunodeficiency; sixth, a convincing increase in the amount of V-lymphocytes in relation to the parameters of the control group in women who were observed (IDSPO) was explained by the fact that immunocompetent cells. The fact that the decrease in one of the components of the immune system leads to an increase in the other should be taken into account when patients give value to their immune status and evacuate.

The results obtained showed that the relative index of CD25+-cells (IDSPO) slightly increased in women observed compared to healthy women (control group) (Table 2). This determined reproduction averaged 1.17 times, and the indicators were diverged from one to the other by a statistically convincing shift towards sick women ($R < 0.05$). When the absolute indicator was analyzed, the trend for relative parameter changes remained, that is, the CD25+-cell absolute indicator was on average 1.12 times higher in patient Women ($R < 0.05$).

However, we witnessed a reverse picture on CD95+-cells, in the blood of sick women, the relative and absolute numbers of these cells were convincingly

reduced compared to the indicators of women of the control group ($R < 0.05$).

In our studies, it was found that the relative amount of CD16+-cells in the peripheral blood of women observed in (IDSPO) increased convincingly by 2.02 times compared to the same parameter in healthy women ($R < 0.001$). This trend, naturally, was also observed in the indicators of the absolute number of these cells, the parameter of increased in patients compared to healthy ones was 1.93 times. It is seen that these indicators differ from one another convincingly ($R < 0,001$).

CONCLUSIONS.

1. The amount of leukocytes in the 1-2 days when the organism of patients women observed in the (IDSPO) fell to the stationary in the immune system was convincingly higher than the indicators of the control group, a decrease in the relative indicators of lymphocytes was observed.
2. A quantitative decrease in T-lymphocytes showed that the immune system of sick women developed T-immunodeficiency, a convincing decrease in CD4+-cells in relation to the control group, and a convincing increase in CD8+-cells testified to a significant strain on the functioning of the immune system. A convincing decrease in IRI in relation to the control group was interpreted as one of the main criteria for the development of secondary immunodeficiency.
3. CD25+-and CD95+ - the relative and absolute quantities of cells changed in different directions. While CD25+-cell levels increased convincingly compared to healthy women in women who were observed with (IDSPO), CD95+-cell the average amount was recorded to decrease. Such a feature was also observed in CD16+-cells. They showed a convincing increase in the average amount (by 1.93-2.02 times) the magnitude of the role of these cells in the immune response.

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