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CLINICAL AND EPIDEMIOLOGICAL FEATURES CUTANEOUS LEISHMANIASIS IN THE REGIONS OF UZBEKISTAN

Khamdamov Bakhtiyor Zarifovich
Bukhara State Medical Institute, Uzbekistan

Rasulova Iroda Abrarjanovna
Bukhara State Medical Institute, Uzbekistan

Khamdamov Alisherjon Bakhtiyorovich
Bukhara State Medical Institute, Uzbekistan

ANNOTATION:

Cutaneous leishmaniasis in various endemic regions has its own specifics due to the uniqueness of environmental factors. Clinical observations of patients made it possible to generalize some characteristic clinical course of cutaneous leishmaniasis in endemic regions.

Keywords. cutaneous leishmaniasis, histiophagocytic system, epidemiological studies.

INTRODUCTION:

In Uzbekistan, cutaneous leishmaniasis is one of the most common parasitic diseases that have a large share in the regional pathology. A fairly high prevalence of zoonotic cutaneous leishmaniasis is noted in Turkmenistan and Uzbekistan, where dozens and hundreds of new cases of this disease are registered annually in endemic zones [1,3,6,7,10,12,16].

Epidemiological studies have shown that certain seasonality is characteristic of cutaneous leishmaniasis. The first patients appear at the end of May, then the incidence increases, reaching its maximum in September-October, and then there is a gradual decline in the incidence and in winter, as a rule, there may be isolated cases of zoonotic cutaneous leishmaniasis, and this applies to patients who have sought medical help late.

It should be emphasized that cutaneous leishmaniasis is one of the few protozoal diseases, the transfer of which leads, as a rule, to the development of persistent, tense and long-term immunity. Leishmania are obligate, intracellular parasites that are able to penetrate, transform, multiply and survive in the cells of the host's histiophagocytic system, so the body's response has its own characteristics [13,18].

Most authors explain the presence of persistent immunity of cutaneous leishmaniasis by the fact that a cellular immune response develops in the human body as a result of the transferred disease [2,4,8,14,17].

Along with the cellular link, the humoral link of immunity has a certain significance, which is also able to influence the synthesis of specific antibodies [5,9]. It was noted that peripheral blood B-lymphocytes lose their functions, which, apparently, is associated with possible violations of the cooperation of immunocompetent cells, as well as an increase in the suppressive activity of blood [9,11].

In Uzbekistan, cutaneous leishmaniasis is one of the most common parasitic diseases that have a large share in the regional pathology of the republic. The incidence of cutaneous leishmaniasis in the regions of the republic as a whole is subject to changes covering long periods of time. Therefore, the study of clinical and epidemiological features of cutaneous

leishmaniasis is an urgent problem in dermatology.

These data indicate the need for further pathogenesis studies to address the development of cutaneous leishmaniasis, as well as the possibility of the development of complicated forms of cutaneous leishmaniasis, in particular, metalleishmaniasis.

Despite the detailed coverage in the literature about the participation of cellular and humoral factors in the formation of cutaneous leishmaniasis, information about their condition in patients with cutaneous leishmaniasis in the available literature is very scarce.

In order to exclude the influence of various pathological conditions on the immune system indicators, when studying the state of immunity, we limited ourselves to the study of persons who did not have diseases of other organs and systems.

The Purpose of the Study:

To develop a method of molecular genetic diagnosis and pathogenetic therapy of cutaneous leishmaniasis based on the study of immune-biochemical studies**.**

Material and Methods of Research:

We studied the clinical and epidemiological features of cutaneous leishmaniasis in 192 patients receiving outpatient and inpatient treatment.

To Conduct the Study:

The territory of the republic was divided into 3 regions: eastern (Andijan, Ferghana, Namangan regions), central (Surkhandarya, Kashkadarya, Samarkand, Jizzakh, Syrdarya, Tashkent regions) and western (Republic of Karakalpakstan, Khorezm, Bukhara, Navoi regions) region**.**

In General:

The analysis of statistical data showed a clear trend towards an increase in the incidence of cutaneous leishmaniasis in the Republic.

Table 1 Distribution of patients with cutaneous leishmaniasis by regions of the republic

Regions	Total patients	
	Quantity	%
east	5	2,6
central	165	85,9
west	22	11,5

The study of the incidence rate by regions of the republic showed that the disease was most often registered in the central and western regions of the republic and amounted to 165 (85.9%) and 22 (11.5%) patients, respectively. And in the eastern region, episodic detection of the disease was noted – 5 (2.6%) cases, and among them some patients were periodically in endemic zones of the disease (Table 1).

The analysis of the incidence of cutaneous leishmaniasis in certain regions of the Republic showed the ambiguity of the registration of cases in the regions. Among the patients, the main part consists of patients from Kashkadarya, Surkhandarya, Bukhara and Jizzakh regions. These regions of the republic are the most endemic, where intensive development of virgin lands is underway, leading to epidemic activation of natural foci.

A retrospective analysis of medical histories and outpatient charts of patients showed that the urban type of the disease was registered in 21 (10.9%), rural – in 171 (89.1%) patients.

The study of the clinical picture showed that in children the lesions were localized in open areas of the body, mainly on the skin of the face, in the nose, cheeks and were presented in the form of tubercle elements with inflammatory infiltration around. The skin in

the affected area is bright red, there is a serious-bloody crust in the center of the tubercles.

In adult patients, in addition to tubercular elements, there were also ulcerative elements, mainly located on the upper (hands, forearms, shoulder) and lower extremities (feet, lower legs, hips) and on the trunk.

Anthroponotic and zoonotic types of cutaneous leishmaniasis had a typical clinical picture. Tubercular leishmanioma in the anthroponous form of cutaneous leishmaniasis was manifested by a little noticeable papule with a tubercle 2-3 mm in diameter, the color of normal skin. It almost towered above the level of the surrounding healthy skin, without visible inflammatory changes. The skin above it was brownish-red, tense, shiny. In the center of some of them there was a small crater-shaped depression with horny scales on the bottom or an ulcer having a round shape, smooth or wrinkled bottom covered with a purulent coating. The edges of the ulcer are steep, uneven, the bottom of the bed is granular, scanty serous-purulent discharge, necrotizing occurs. The ulcer is surrounded by a roller-like infiltrate. The number of ulcers is 1-3 and they were usually located on open areas of the skin accessible to mosquitoes (face, hands).

In patients with zoonotic cutaneous leishmaniasis, an island-inflammatory, red-colored cone-shaped tubercle with a diameter of 2-4 mm appeared, and in some patients it reached 15-20 mm in diameter. The tubercles were surrounded by inflammatory swelling of the skin. Ulcers with a diameter from 2-4 mm to 4-5 cm had steep edges with a necrotic bottom. On their periphery, a wide infiltrate and inflammatory edema with tubercles of insemination around were visible. The ulcers had uneven undercut edges, the bottom was covered with necrotic masses or abundant serous-purulent discharge. The edges of the ulcers are smooth, covered. The infiltrate around the ulcer rose in the form of a roller. In some patients, along with tubercular and ulcerative elements, there were foci with growing granulations in the form of papillomas, resembling papilloma "a symptom of fish eggs". In some patients, the process was complicated by lymphangoitis, lymphadenitis and successive leishmaniomas. With lymphadenitis on the lower extremities, swelling of the shins and feet can be observed due to lymphostasis. Metalleishmaniasis was diagnosed in 8 (4.2%) patients. The skin process was manifested by small bumps (2-3 mm in diameter) of a yellowish-brown color. There were ulcerated old bumps, scars formed in place of the former bumps and ulcerations, and new, fresh bumps continued to appear along the edges of the infiltrate. Sometimes there was an abortive course of leishmaniasis, when small tubercle elements persisted for a long time without the formation of an open ulcer.

It should be noted that anthroponous cutaneous leishmaniasis was registered mainly in patients who applied from the Jizzakh region, and zoonotic cutaneous leishmaniasis was registered in patients from the Bukhara and Kashkadarya regions.

Among the examined patients, facial skin (eyebrows, nose, cheeks, bridge of nose, corner of mouth, chin) was affected in 108 (56.1%) patients, upper limbs (hands, forearms, shoulders, elbows) – in 27 (14.1%), lower limbs (feet, lower legs, hips) – In 18 (9.4%), torsos, upper and lower limbs – in 13 (6.8%), face and upper limbs – In 13 (6.8%), upper and lower limbs – in 8 (4.2%), chest and trunk - in 5 (2.6%) patients (Table 2).

Table 2 Distribution of patients with cutaneous leishmaniasis in the affected areas of the body

Body areas	Total patients	
	Quantity	%
facial skin (eyebrows, nose, cheeks, bridge of nose, corner of mouth, chin)	108	56,1
upper limbs (hands, forearms, shoulders, elbows)	27	14,1
lower limbs (feet, shins, thighs)	18	9,4
torsos, upper and lower limbs	13	6,8
face and upper limbs	13	6,8
upper and lower limbs	8	4,2
chest and torso	5	2,6

Analysis of the clinical course of the pathological process showed that the number of lesions in patients varied from 1 to more than 9 pieces.

There was 1 ulcer in 101 (52.6%), 2-3 in 66 (34.4%), 4-5 in 17 (8.8%), 6-7 in 4 (2.1%), 8-9 in 4 (2.1%) patients (table 3).

Table 3 Distribution of patients with cutaneous leishmaniasis by the number of existing ulcers

Number of ulcers	Total	
	Quantity	%
by 1	101	52,6
by 2-3	66	34,4
by 4-5	17	8,8
by 6-7	4	2,1
by 8-9	4	2,1

Among the examined patients, the disease was accompanied by soreness in 49 and itching in 66 patients. In the remaining 77 patients, the disease proceeded without subjective sensations. Among the patients in whom the disease was accompanied with subjective sensations, 15 patients showed both soreness and itching.

Thus, our clinical and epidemiological studies have shown that in the Republic of Uzbekistan there is an increase in the incidence of cutaneous leishmaniasis, mainly children under 14 years of age (53.1%) suffer from cutaneous leishmaniasis. Cutaneous leishmaniasis in various endemic regions has its own specifics due to the uniqueness of environmental factors. Clinical observations of patients made it possible to generalize some characteristic clinical course of cutaneous leishmaniasis in endemic regions.

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