

## **CUTANEOUS LEISHMANIASIS**

**Khakima Khusniddinova**

student, Faculty of Beauty Aesthetics, Kimyo international university in Tashkent,

Uzbekistan, Tashkent

**Dilshod Khakimov**

Health of the Republic of Uzbekistan The Ministry of Health specializes in the Republic dermatovenerology and cosmetology center, scientific advisor, candidate of sciences medical,

Uzbekistan, Tashkent

**Abdullayev Aslbek Ongdaliyevich**

Head of the direction “Beauty Aesthetics”, Kimyo international university in Tashkent ,

Uzbekistan, Tashkent

**Abstract:** The purpose of the article is to review the most common disease-cutaneous leishmaniasis.

**Keywords:** cutaneous leishmaniasis; cutaneous leishmaniasis classification; the cure of the disease; dermatology; cosmetology.

Cutaneous leishmaniasis is an endemic, parasitic, infectious transmissible disease. In order for the disease to occur, of course, a mosquito (infectious carrier) can ingest the causative agent (*Leishmania tropica*) along with blood from the reservoir of infection (patient person or animal), and then this mosquito can bite and infect a healthy person.[1]

**Etiology.** In 1898, the causative agent of the disease was identified by P.F. Borovsky, a doctor of the Tashkent military hospital. Later (5 years later), English

scientists working in different cities of India - Leishman and Donovan, unaware of each other and P.F. Borovsky's work, identified the causative agent of visceral leishmaniasis and named it *Leishmania donovani*. After getting acquainted with the scientific results of P.F. Borovsky (1945), English scientists introduced the synonym of Borovsky corpuscles to the causative agent of cutaneous leishmaniasis.[1]

The causative leishmanias are egg-shaped, 2-5  $\mu\text{m}$  in length and 1.5-4  $\mu\text{m}$  in width. There are two nuclei in the protoplasm, one is large and oval, and the other is small and rod-shaped. That is why the causative agent of the disease is called Borovsky's corpuscles. Borovsky corpuscles are found in large quantities in the blood, in macrophages and in infected skin lesions. When the materials taken from the tissue fluid are stained by the Romanovsky-Giemza method and observed under a microscope, the protoplasm of *Leishmania* is light-yellow, the large nucleus is red or red-violet, and the small nucleus is stained dark purple.[2]

Two different clinical types of the disease are distinguished: acute-necrotic, rural or animal type and late-necrotic, urban or human types. Acute necrotizing, rural or animal type of the disease is caused by *Leishmania tropica minor*. In the rural type, the source of the disease is rodents (desert mice, rats, woodpeckers), and in the urban type, the disease is considered to be humans. Mosquitoes belonging to the class of *Phlebotomus* are considered carriers of the disease. When sick animals or sick people are bitten by mosquitoes, they carry leishmanias, the causative agent of the disease, along with the absorbed blood in their saliva. If such mosquitoes later bite healthy people, then they transmit Borovsky's disease cells through their saliva. That is why the carrier of such a disease is called "fly". [2]

**Clinic.** The rural type of cutaneous leishmaniasis begins acutely, ulcers are formed, they become wet and undergo necrosis (acute necrotizing leishmaniasis). The incubation period of the disease is short; on average, it can take 2-4 weeks, sometimes 6-8 weeks. Initially, a furuncle-like lump appears in the place of a mosquito bite, and they tend to increase in size. Their color is reddish, bluish; it is

acutely inflamed, the consistency is heavily infiltrated, and it hurts like a lump; in 1-2 months (in 1-2 weeks in children), a deep and painful wound is formed.[3]

In the rural type of cutaneous leishmaniasis, the number of boil-like bumps or leishmaniasis increases from 1-2 to 5-10, even 50-60; their number depends on how many times the phlebotomus mosquito has bitten a person. L. Heidenreich observed 174 leishmaniomas (1938), A. N. Slavin 222 leishmaniomas (1964). The frequency of the disease usually depends on the seasons, it increases mainly in autumn, in July-October. According to experts, mosquitoes bite people mainly at night, that is, when they are sleeping. One mosquito can bite a certain place of a person 10-15 times, so leishmaniomas are located in clusters. [3]

The urban (anthroponosis) type of cutaneous leishmaniasis is chronic, and leishmaniomas develop late. The incubation period is up to one year (one-year), sometimes up to 3-4 years. Urban residents are often affected by this type of disease. Usually, this disease occurs in people who have gone to endemic areas and contracted the disease in the previous season. In the place where a person is bitten by a mosquito (face, hand, leg), a small bump is formed, it rises slightly from the skin and gradually increases in size to a reddish-brown or bluish, densely infiltrated lump. it turns into a mongkocha. It is covered with a thick black scab and becomes a wound in the middle. The edge of the wound is uneven, ring-shaped, infiltrates around, the bottom is covered with granular tissue; it contains yellow-pink bloody or dark purulent liquid. Gradually, the edges end up forming an uneven scar. Lymphangitis is very rare in this form of cutaneous leishmaniasis. In both types, immunity to the relevant pathogens of the disease appears. [3]

The third type of aphid disease, i.e., tuberculoid type, is also observed in children. In other words, this type of disease is more common in children and adolescents compared to adults, and it is observed in 6-8% of accidents. [2]

**Histopathology.** The epidermis is expanded and acanthose, the papillary layer is rather thin and consists of 3-4 rows of cells. Intercellular and intracellular swelling and dystrophic changes are observed in them. In the dermis, a diffuse, polymorphic

infiltrate composed of histiocytes, fibroblasts, lymphocytes, and epithelial cells is seen. Among large macrophages, Borovsky bodies are often found. [3]

**Diagnosis.** When making a diagnosis, it is important to study the history of the disease, to determine whether the patient was in an epidemic center or not. The clinical picture of the disease, lymphangitis located along the periphery around the wounds, necrosis of the wounds, granulation of the surrounding tissue, dull pain, as well as the detection of the presence of the causative agent in the laboratory examination allow to make the correct diagnosis. [3]

Antibiotic drugs (monomycin, metacycline, doxocillin, rifampicin) are widely used in the treatment of fly-biting disease. Monomycin is administered intramuscularly at the rate of 20,000-25,000 TB per 1 kg of body weight 2 times a day for 10-12 days. 50,000 TB per 1 kg of body weight is recommended to drink Monomycin. In recent years, the drug methacycline has been successfully used in the treatment of the disease. The drug is given at 0.3 g per day for 10-12 days. Rifampicin is recommended to drink 0.3 g 2-3 times a day, 30-40 minutes before meals, and children are recommended to take 7.5-10 mg per 1 kg of body weight 25 times a day. Doxocillin 0.1 or 0.3 g twice a day with food is recommended, the course of treatment is 10-15 days. Local treatment measures are carried out by mixing a 1% solution of acrixin with novocaine and digging around the wound. It is also recommended to apply 5% monomycin or 3% methacycline ointments to wounds. [2]

To repair wounds, use "Oxycort", "Lacococorten", neomycin or vioform, 2% white mercury or 5% sulfanilamide ointment, 1-5% ichthyol, 0.5-1% silver nitrate and 0.1% Ethacridine lactate solutions are used in complex form. [3]

### **List of references:**

1. Adham Vaisov, "Skin and genital diseases". "Generation of the new century", 2009. 105-108.

2. Children's skin and genital diseases: Textbook/ Mannanov A.M., Khaitov Q.N.; Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan. Tashkent Pediatric Medical Institute; T.: "Economy-Finance", 2016. 183-188.

3. S.S. Arifov, E.U. Eshboyev. Skin and genital diseases //. "National Encyclopedia of Uzbekistan" State Scientific Publishing House, Tashkent - 1997. 186-190.