



### Leishmaniasis and its Effects on the Human Body

*Jumayev Abdulaziz Ilhomovich*<sup>1</sup>

*Turayev Adxam Abdulfayiz o'g'li*<sup>2</sup>

<sup>1</sup> Student of the Faculty of Medicine, Samarkand State Medical University

<sup>2</sup> Student of the Faculty of Medicine, Termiz Branch, Tashkent Medical Academy

**Annotation.** The purpose of this scientific article is to describe the characteristic symptoms of leishmaniasis, the effects of skin, visceral and mucosal leishmaniasis on the human body, the incubation period, the ways of transmission, what measures to take to avoid infection, the methods of fighting and treating rodents and rodents. shed new light on what tools can be used.

**Key words:** leishmaniasis, cutaneous leishmaniasis, visceral leishmaniasis, mucocutaneous leishmaniasis, severe injury (Borowisky's disease), incubation period, iscabtopar, rodents, robust immunity.

Leishmaniasis is an endemic and forgotten tropical disease found in 98 countries around the world. According to WHO information, 350 million people may be infected with this disease. Every year, 14 million people get sick with this disease, and about 2 million new cases of the disease are reported. In addition, 50,000 deaths from visceral leishmaniasis are reported every year.

Leishmaniasis is a tropical disease of humans and animals. Mainly found in tropical and subtropical regions. This disease is caused by leishmanias belonging to the class of simple animal type Khivchinli. The distributor is Iskabtopars. The source of infection is various rodents. There are 3 types of leishmaniasis: cutaneous leishmaniasis (wound), visceral leishmaniasis, and mucosal leishmaniasis. Visceral leishmaniasis is also called "kala-azar". This type of disease mainly affects young children. It is chronic, seriously damages internal organs; occasional attacks of fever, extreme enlargement of the liver and spleen, anemia, and extreme emaciation are typical symptoms of the disease. Deaths are often observed. Prevention consists in exterminating rodents and rodents. Personal protective equipment - repellents are used.

Purpose:

- To provide brief information about leishmaniasis disease that occurs in our country and in the life of the world, about measures to prevent and fight against it.

Visceral zoonosis, skin anthroponosis and zoonotic leishmaniasis are widespread in Uzbekistan.

Visceral leishmaniasis: spread in India, Bangladesh, Transcaucasia, Mediterranean, Southern Europe, South America and African countries. In our republic, visceral leishmaniasis is returning mainly in Namangan and Navoi regions, Fergana, Samarkand, Jizzakh regions in few cases. This disease mainly affects children from 1 to 5 years old.

Visceral leishmaniasis is characterized by a sudden increase in body temperature of 39-40 C and a chronic course. It is characterized by damage to the lymphoid-macrophage system, prolonged fever, enlargement of the spleen and liver, anemia and secondary immunosuppression.



Visceral leishmaniasis, also called "Kala-azar", is fatal in 95% of cases if left untreated.

About 50,000 to 90,000 new cases of the disease occur worldwide every year. This disease remains one of the most deadly parasitic diseases.

Cutaneous leishmaniasis disease: widespread in Central Asia (Turkmenistan, Uzbekistan) and Transcaucasia, Afghanistan, Middle East and African countries. Also, we can often meet this disease in the southern region of Uzbekistan, that is, in the Termiz district of the Surkhandarya region. Endemic foci are found mainly in villages and suburbs of desert regions. Seasonal damage in summer depends on the period of activity of beetles.

There are 2 types of cutaneous leishmaniasis in Uzbekistan: zoonotic and anthroponous cutaneous leishmaniasis.

Zoonotic or acute necrotic skin leishmaniasis (rural leishmaniasis, pendin ulcer, eastern ulcer, mirgab ulcer).

The source of the disease: can be a large and red-tailed sand mouse and other rodents. They are widespread in the desert regions of our republic.



Incubation period: It usually lasts from 1 to 4 weeks, sometimes up to 2 months. After the disease, strong immunity appears and is preserved for life. The disease returns mainly in the late summer and autumn months.

Antroponosis cutaneous leishmaniasis (Borovisky's disease, Eastern ulcer, Ashgabat and Kokan ulcer, etc.). Cutaneous leishmaniasis is the most common form of leishmaniasis, which causes lesions to appear mainly on open areas of the skin. Approximately 95% of cases of cutaneous leishmaniasis occur in the Americas, the Mediterranean basin, the Middle East, and Central Asia. In 2020, more than 85% of new cases occurred in 10 countries: Afghanistan, Algeria, Brazil, Tunisia, Colombia, Iraq, Libya, Pakistan, Peru and Syria. It is estimated that more than 600,000 cases occur every year.

Leishmania-infected leishmaniasis infects the body and forms a lump, then this lump turns into an ulcer. There are 2 types of bad wounds: 1) urban type (dry type, Ashgabat ulcer) - latent period is 6-8 months, the disease lasts 8-12 months, sometimes more than that; the infection spreads from the patient; 2) the hidden period of the road or torture type (Pendi ulcer) is 10-12 days, the disease lasts 2-4 months. The infection spreads from rodents infected with leishmania (sand mice, woodpeckers, etc.), as well as from sick people. Strong immunity develops in the body after a bad injury. If a bad wound is not treated, it will become a scar.

Prevention. It is recommended to get rid of rodents, their nests and nests around the house, to keep fly nets, to use repellents (chemical substances that are applied to open areas of the body and sprayed on clothes to avoid insects). Those who move to the place where there is a bad injury are vaccinated as a precaution, as a



result of which immunity is created against the urban and rural version of the bad injury. This disease is now almost extinct.



Mucosal leishmaniasis: causes partial or complete destruction of the mucous membranes of the nose, mouth and throat. More than 90% of submucosal leishmaniasis occurs in Bolivia (a multinational country), Brazil, Ethiopia and Peru.

Disease diagnosis.

If there is any suspicion of leishmaniasis, the following diagnostic methods can be used to confirm the diagnosis: microscopy and PCR examination of punctures of organs and tissues, skin samples taken from affected areas, and blood tests are carried out.

### Summary

In conclusion, in order to avoid contracting leishmaniasis, it is necessary to follow a number of measures: first of all, to actively fight against the source of infection, dogs, rodents and rodents, to carry out disinfection, to treat patients in a timely and correct manner. attention should be paid.

One of the measures to be taken against the increase of Iskabtopars is to carry out beautification works in settlements and houses. Apart from that, the houses are treated with poisonous chemicals, the inside and outside of the houses where the disease has returned are treated, and the neighboring houses are also treated. Also, it is possible to prevent the increase of iskabtopar by covering the lower part of the walls of the houses with concrete coatings, asphaltting the streets, and covering the yards with baked bricks.

With the use of insecticides, measures are taken to neutralize the wasps and their breeding places.

In cases of infection, it is recommended to use periparats containing antimony (salyusurmin, stibanol, neosutibadan, etc.). Based on the above ideas, if everyone follows these recommendations, we would be able to eliminate the risk of leishmaniasis.

### References:

1. O`zbekiston milliy ensiklopediyasi
2. Tibbiyot ensiklopediyasi
3. Евгений Красавцев, Виктор Семинов, Сергей Жаворонок. Тропические и паразитарные болезни. 2021
4. <https://avitsenna.uz>
5. <https://uz.m.wikipedia.org>

