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**DISTRIBUTION OF LEISHMANIASIS IN THE OLD WORLD AND
ANALYSIS OF PATIENTS WITH LEISHMANIASIS**

Sh.E.Tolibova
Samarkand State University

Abstract: *The area of distribution of leishmaniasis is determined by the distribution of its nosogeographical forms, these being determined by the composition of the parasitic system (parasite-vector-host) and by environmental conditions. There are three distinct nosogeographical forms of visceral leishmaniasis in the Old World (Mediterranean-Middle Asian, Indian, and East African forms). In the Mediterranean-Middle Asian subzone there are three types offocus: natural, semi-synanthropic, and synanthropic. This situation reflects the evolution of visceral leishmaniasis from a zoonosis to an anthroponosis. Indian kala azar is a true anthroponosis. There are two geographical forms of cutaneous leishmaniasis in the Old World: a zoonotic form and an anthroponotic form. Natural foci of zoonotic cutaneous leishmaniasis are located mainly in the deserts of Middle Asia. Foci of anthroponotic cutaneous leishmaniasis have developed mainly in those areas where zoonotic cutaneous leishmaniasis does not occur[4,5].*

Key words: *visceral leishmaniasis, zoonosis, anthroponosis*

Аннотация: *Ареал распространения лейшманиоза определяется распространением его нозогеографических форм, которые определяются составом паразитарной системы (паразит-переносчик-хозяин) и условиями окружающей среды. В Старом Свете различают три нозогеографические формы висцерального лейшманиоза (средиземноморско-среднеазиатская, индийская и восточноафриканская). В средиземноморско-среднеазиатской подзоне выделяют три типа очагов: природные, полусинантропные и синантропные. Такая ситуация отражает эволюцию висцерального лейшманиоза от зооноза к антропонозу. Индийский кала-азар является истинным антропонозом. В Старом Свете различают две географические формы кожного лейшманиоза: зоонозную и антропонозную. Природные очаги зоонозного кожного лейшманиоза расположены в основном в пустынях Средней Азии. Очаги антропонозного кожного лейшманиоза развились в основном на тех территориях, где зоонозный кожный лейшманиоз не встречается.*

Ключевые слова: *висцеральный лейшманиоз, зооноз, антропоноз.*

Research methods used: In developing countries where the disease is not prevalent, the existence of laboratory facilities enables an adequate and efficient follow-up of the disease. However, in developing countries with large numbers of patients in rural areas, simple diagnostic tools are necessary for field use. Laboratory diagnosis of CL includes microscopic observation and Microscopic examination, and DNA sequencing of cutaneous leishmaniasis, and biochemical examination of blood samples from patients with leishmaniasis were performed [1,2].

Research results: A molecular biological study was conducted to determine the genotype of Leishmania. After DNA extraction from positive preparations, PCR was performed in two stages. The first stage of PCR (ITS) detected the activity of the Leishmania gene in all 23 samples. For the PCR (RFLP) run, we had specific primers for three Leishmania species (*L. major*, *L. tropica* and *L. infantum*). According to RFLP1, 6 (69.6%) samples were identified as *L. major*. We did not identify the remaining 7 (30.4%) samples, because they did not match any of the primers we had. Perhaps, in this rodent population, we encountered *L. turanica* - leishmania, which is endemic and only epizootically acquired. Thus, 16 (21%) of the total number of rodents we caught, or 27.1% of the large sand voles, turned out to be carriers of *L. major*.

Conclusion: The presence of the mosquito-borne *Ph. sergenti* in settlements poses a risk of spreading the causative agent of anthroponotic cutaneous leishmaniasis among the non-immune population if *L. tropica* is introduced from endemic regions.

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