

Leishmaniasis is now considered an endemic pathogen in Texas

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Leishmaniasis, the vector-borne disease transmitted by sandflies and caused by an obligate intracellular protozoan, traditionally reported in travelers and military personnel returning from tropical countries, is now considered endemic in Texas in a recent report by the Centers for Disease Control and Prevention presented in October 2023 at the American Society of Tropical Medicine and Hygiene conference.^{1,2}

Although it has been present in Texas since 2005, almost all of the cases reported every year originate in the Americas (some regions of Mexico, Central America, and South America), the Mediterranean region, northern Africa, and Central Asia, with known endemicity in 90 countries.³ In 2022, 205,653 cases of cutaneous Leishmaniasis and 13,012 cases of visceral Leishmaniasis were reported worldwide.⁴

In the United States, this disease is only a notifiable condition in Texas but isn't notifiable in any of the other 49 states or various U.S. territories. In addition, it is not nationally reportable, which does not lead to surveillance by the CDC. According to data reports from the Department of State Health Services, 11 cases were reported in Texas in 2022, and 6 cases were reported this year as of Nov. 30, 2023. No cases have been reported in Lubbock County, Texas.^{5,6}

The subspecies of *Leishmania* usually reported in the United States is *L. mexicana*, which causes cutaneous leishmaniasis and usually presents as a cutaneous ulceration in areas where a sandfly has bitten (Figure 1). These lesions have raised edges and central craters that can be either painless or painful. Lymphadenopathy is sometimes present. *L. mexicana* is not related to the more severe form, visceral leishmaniasis, which can present with fever, lymphadenopathy,



Figure 1. Cutaneous Leishmaniasis lesion. Image courtesy of Medscape. Accessed 12-18-2023.

splenomegaly, hepatomegaly, anemia, leukopenia, and thrombocytopenia.^{1,7}

This change in the trend in the distribution of this disease is possibly related to its vector, the hematophagous sand flies in the *Phlebotomus* and *Lutzomyia* genera. This sandfly is most prevalent in southern states but has been reported as far north as Maryland and Delaware.⁸ This appears to be related to warmer conditions associated with climate change. McIlwee and colleagues state in *JAMA Dermatology* in 2018 that prediction models estimate that around 12 million people in the US could be exposed to Leishmaniasis at this moment, and this number could double over the next 60 years.³

This disease can be diagnosed with several laboratory methods, including assessments of tissue specimens by direct microscopy and visualization of amastigotes; isoenzyme analysis, which is the conventional diagnostic approach for *Leishmania* species identification but has the limitation of possibly taking several weeks; serology, which has limited use in cutaneous disease; and molecular diagnosis.^{1,7}

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Treatment should consider both the subspecies of the *Leishmania* protozoa and the patient's disease involvement and immunologic status. Most of the lesions in cutaneous Leishmaniasis that are not located on the face or over a joint resolve without treatment. Drugs available in the U.S. for mucocutaneous and visceral leishmaniasis include antiparasitic pentavalent antimonial agents, sodium stibogluconate (Pentostam), meglumine antimonate (Glucantime), liposomal amphotericin B, oral miltefosine, and Pentamidine.¹

Keywords: Leishmania, sandfly, cutaneous ulcers, geographical distribution

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