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COMMENTARY

Cutaneous leishmaniasis imported from Colombia to Northcentral Venezuela: Implications for travel advice☆

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Summary *Background:* Imported leishmaniasis could be defined as any case acquired outside of a defined area in which the diagnosis of leishmaniasis is made. This definition has been used for the diagnosis of disease in a patient who arrives from an endemic area and displays symptoms or seeks medical attention in a nonendemic zone. However, this phenomenon can also occur between two endemic zones.
Methods: We evaluated the epidemiologic features of imported cases of cutaneous leishmaniasis imported from Colombia into Northcentral Venezuela from 2001 to 2006. A total of 29 patients with the clinical diagnosis of cutaneous leishmaniasis arriving from Colombia were evaluated at our referral center. Different diagnostic methods were used to confirm the diagnosis (the Montenegro skin test; an indirect immunofluorescence test and smear of cutaneous lesion). Clinical and epidemiological features of cutaneous leishmaniasis among these patients were evaluated.
Results: We identified that most identified patients were male with a mean age of 35 years (age range was 7–64); all cases were from northern departments of Colombia. These patients presented a mean clinical evolution of 3 months. Most patients presented with one cutaneous lesion (17%), which were located mostly in extremities (20%). Of the 29 patients, in 16 (55%) cutaneous leishmaniasis was confirmed by different diagnostic techniques. In 2 patients the diagnosis was made by smear. In the rest, 14 (100%) patients were positive by the Montenegro

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skin test and 11 (79%) were positive by the indirect immunofluorescence test (79% were positive simultaneously by both tests).
Discussion: The identification of imported cutaneous leishmaniasis in our setting becomes important, given the differences in the epidemiology of the disease and the clinical severity of leishmaniasis between both zones (ecological characteristics, circulating *Leishmania* spp., and population characteristics) and the risk of the mucocutaneous forms of the disease.

Introduction

Leishmaniasis is endemic throughout the Middle East, North Africa, parts of Europe, and Central and South America.[1] The worldwide prevalence of this disease is 12 million, with a 10th of the world's population at risk.[2,3] Given this scenario, over the past decade the globalization and the increasing number of world destinations that include these endemic zones, makes it possible to acquire leishmaniasis in these regions and then returned to their home countries with this parasitic disease (imported cases).[4] In Venezuela, the prevalence of cutaneous leishmaniasis ranges between 1677 and 3020 cases per year in the last 10 years (1997—2006), with an incidence rate of 7.3—11.8 cases per 100,000 population in that period.[5,6]

Imported leishmaniasis could be defined as any case acquired outside of a defined area in which the diagnosis of leishmaniasis is made. This definition has been used for the diagnosis of a disease in a patient who comes from an endemic area and displays symptoms or seeks medical attention in a nonendemic zone. However, this epidemiological pattern can also occur between two endemic zones or countries (e.g. Colombia and Venezuela).[7]

The identification of imported leishmaniasis in this setting becomes important, given the differences in the epidemiology of the disease and the clinical features of leishmaniasis between both zones (ecological characteristics, circulating *Leishmania* spp., and population characteristics).[7] From an epidemiological standpoint, particularly with respect to preventive and control measures, it is important to identify the locations where patients with *Leishmania* spp. have visited.

Methods

The Tropical Medicine Institute of the Central University of Venezuela is a referral center for tropical diseases in Caracas, Venezuela, which receives patients from different parts of the country, but sometimes from other countries (Fig. 1). In the present study, we evaluated the epidemiological features of imported cases of cutaneous leishmaniasis that arrived recently ($\leq$3 months) from Colombia to Northcentral Venezuela from 2001 to 2006.

A total of 29 patients with the clinical diagnosis of chronic cutaneous leishmaniasis proceeding from Colombia were evaluated at our referral center. Different diagnostic methods were used to confirm the diagnosis (the Montenegro skin test, an indirect immunofluorescence test and smear). Clinico-epidemiological features of cutaneous leishmaniasis among these patients were determined.

Results

Of the patients, 13 were female and 16 male, with a mean age of 35 years (age range was 7—64).

There was a considerable difference in the places of origin; all patients with specified zone of origin were from north departments of Colombia, 7% were from the Sucre Department (in northwest), 3% from the Antioquia Department (in the west), 3% the Magdalena Department (in north), 3% from the Santander Department (in northeast), 3% from the Bolivar Department (in the west), among others (Fig. 1). Most of these zones, corresponded to Departments with Municipalities with high incidence and high predicted probability of cutaneous leishmaniasis.[6,7]

The Departments of origin of these patients corresponded to three different ecoepidemiological zones of Colombia: the Atlantic Coast, the Cauca River Valley and the Magdalena River Valley, which reported in 1994 a median incidence of cutaneous leishmaniasis ranging between 29.5 and 64.5 cases per 100,000 rural population.[8] Two patients came from endemic zones in Colombia, lived 3 months in El Hatillo before consulting. This location which is close to Caracas is considered a low endemic area for cutaneous leishmaniasis. All patients mentioned exposure to sandfly bites in their origin locations. The patients had a mean clinical progression of 3 months (62%, 3—6 months). Most patients had just one lesion (17%), which was located mostly on the extremities (20%). These corresponded to non-nodular cutaneous ulcers without associated significant lymphadenopathy.

Of the 29 patients diagnosed clinically with cutaneous leishmaniasis, in 16 (55%) disease was confirmed by different diagnostic techniques. In 2 patients the diagnosis was made by smear. In the remainder, 14 patients were positive by the Montenegro skin test and 79% were positive by an indirect immunofluorescence test (79% were positive by both tests). The Montenegro skin test mean size was 13 mm but in those with an indirect immunofluorescence negative test it was 11 mm. The median titer for the indirect immunofluorescence test was 1/128.

All cases were treated successfully with Meglumine antimoniate (20 mg/kg/day) in two divided doses given intramuscularly during 28 days.

Discussion

The possible explanations for this group of imported cases of cutaneous leishmaniasis from Colombia to Northcentral Venezuela are related to different social reasons that have been encouraging people from Colombia to move to