

CUTANEOUS LEISHMANIASIS IN THE REPUBLIC OF PANAMA

A REPORT OF TWENTY-FIVE CASES

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The first case of cutaneous leishmaniasis in the Republic of Panama, was reported by Darling (1910) at a meeting of the Isthmian Medical Association. At the same session, Herrick (1910) reported a second case which was confirmed by Darling. A short time later, Darling (1910a, 1911, 1911a) and Darling and Connor (1911) reported two further cases. Bates (1913) reported the only case with nasal mucous membrane involvement that has ever been observed in Panama. Brosius (1928) reported one case, and in 1930, another one. Kea (1944) reported nine new cases; Johnson (1944) six; and Snow *et al.* (1948) three new ones. Thornburgh *et al.* (1952), have reported their pathological findings in twenty cases, including seven new ones. In summary, then, thirty-two pathologically confirmed cases have been reported to date.

We doubt, however, that this small number of cases represents the true incidence of the disease in Panama, since during the first three months of 1952, we attended seven acute cases and were able to find eighteen cases in the cicatricial or healed stage.

REPORT OF CASES

The first manifestation in all of the seven acute cases was a localized pruritic area of erythema resembling an insect bite. There was no pain or systemic reaction. Five of the patients actually saw an insect biting them, but their descriptions were not sufficiently accurate or detailed enough to identify the insect. A papule which later became a vesicle developed in the center of the erythematous area. The vesicle eventually ruptured due to trauma from scratching and discharged a yellowish serum, forming an ulcer with a granular base and a thickened, elevated, undermined border (Fig. 1).

With ulceration established, the itching disappeared, but local suppuration with crust formation caused varying degrees of pain, directly proportional to the intensity of the inflammation. The diameter of the ulcers varied between two and twelve centimeters. They occurred only on exposed parts of the body (Table 1). No symmetrically localized lesions were noted. The number of the ulcers varied between one and seven. There was superinfection in three patients due to autoinoculation from the primary ulcer. Acute lymphangitis and regional adenitis due to secondary infection were present in five cases. In four patients the superficial lymphatic vessels were thickened and presented multiple small nodules along their course. These nodules were slightly erythematous, tender, less than one centimeter in diameter and did not ulcerate. There was no case of mucous membrane involvement or systemic reaction.

Three patients showed secondary infection at the first visit, while in the other

our it had apparently been controlled by previous application of local anti-septics. As soon as the secondary infection was controlled, the ulcer's appearance changed markedly, the base became smooth, red and clean, and the borders became flat and thin, losing their undermined character. As the ulcers healed, the lymphangitis subsided and disappeared. The ulcers healed slowly. For a time the scar was pink and slightly scaly (Fig. 2), but later became depigmented, pink, smooth and glistening with a hyperchromic border. It was exactly this latter appearance of the scars that we noted in the eighteen patients examined on our field trips to be described later (Fig. 3).

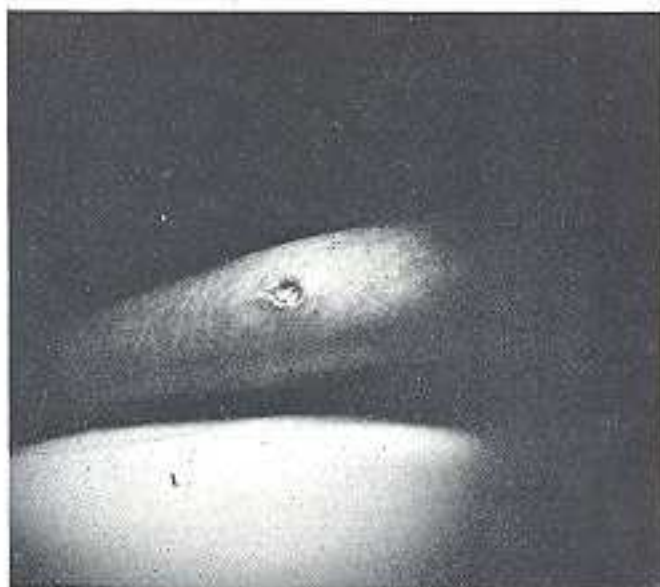


FIG. 1. Ulcer with a granular base and a thickened, elevated, undermined border.

DIAGNOSIS

In all seven acute cases the diagnosis was confirmed by demonstrating *Leishmania brasiliensis* in scrapings and sections from the borders of the ulcers. Smears from the surface of excised nodules of the superficial lymphatics were positive in three of five cases examined. In the eighteen late or cicatricial cases the diagnosis was made taking into consideration the place of residence of the patient, his occupation, the month of onset of the disease, the history of an insect bite, the clinical history of the lesion and negativity of the V.D.R.L. reaction.

EPIDEMIOLOGY

To investigate the surroundings of the seven patients, we visited the villages of Cerro Bandera, Laguna de Chilibre and Mesa de Pacora, accompanied by Drs. M. Hertig and A. G. Fairchild of the Gorgas Memorial Laboratory. We did not go to Arraijan because it has previously been investigated by one of us (C. M. J.) who reported six cases from there in 1944. On these field trips we encountered eighteen cases in the cicatricial stage which will be included in the discussion of the epidemiological data.

A total of twenty five cases were studied, all of the Indo-American race:

TABLE I
Clinical and Epidemiological Data on 25 Cases of Cutaneous Leishmaniasis in Panama

CASE NUMBER	AGE	SEX	DESCRIPTION OF THE ULCERS				HOW AND WHEN CONTRACTED IN WILDERNESS	SEASON OF RECOVERY, YEARS	PLACE OF RESIDENCE				
			Number	Stage	Location					Char. pig.	Sow.	Harv.	Months
					Characteristic	Scrap Infestation							
<i>Acute</i>													
1	11	F	7	Ulcerative (3), Scaly-centriacral (4)	Right arm (3)	Right arm (2)	x	x	May	Cerro Bandera			
2	9	F	5	Ulcerative (3), Scaly-centriacral	Right thigh (3)	Face (2)	x	x	April	Cerro Bandera			
3	6	M	2	Scaly-centriacral	Right thigh (2)		x	x	May	Cerro Bandera			
4	20	M	2	Ulcerative	Left knee (1)	Left leg (1)	x		July	Laguna Chilibre			
5	8	F	1	Ulcerative	Right leg (1)				Oct.	Laguna Chilibre			
6	16	M	2	Ulcerative	Left forearm (1) Left hand (1) Right wrist (1)		x		Jan.	Arraijan			
7	31	M	1	Ulcerative				HUNTING	Aug.	Messa Parera			
<i>Chronic</i>													
8	21	M	1	Centriacral	Left leg			x	March	Laguna Chilibre			
9	19	M	1	Centriacral	Left leg		x		Jan.	Laguna Chilibre			
10	36	M	2	Centriacral	Left leg (1)	Left leg (1)	x		Jan.	Laguna Chilibre			
11	29	M	2	Centriacral	Left knee (1)	Left leg (5)		x	July	Laguna Chilibre			
12	26	M	4	Centriacral	Right hemithorax (2) Neck (1)	Right hemithorax (2) Right shoulder (1) abdomen (1) Right hand (1)	x		Jan.	Laguna Chilibre			
13	36	M	3	Centriacral	Right arm (1)		x		March	Laguna Chilibre			
14	21	F	2	Centriacral	Right leg (2)	Right leg (1)	x		Jan.	Laguna Chilibre			
15	36	M	3	Centriacral	Right leg (2)			x	Aug.	Laguna Chilibre			
16	41	M	1	Centriacral	Right thigh			x	Aug.	Laguna Chilibre			

(Table 1). The extremes of age were from six to sixty years. There were two males and five females. All of the patients, with the exception of the two previously mentioned hunters were farmers who lived in the "bush" and were infected while clearing virgin forest (14 cases), sowing (4 cases) or harvesting (5 cases). The duration of continuous residence in an area before infection occurred, varied between two and seven years. But in all the cases, the clearing of new bush and the sowing and harvesting of the same coincided with the beginning of the sickness.

The various localities from which the patients came prove that the disease has been observed not in one area alone but in different ones, which justifies the previously expressed opinion of its generalized distribution in the country.

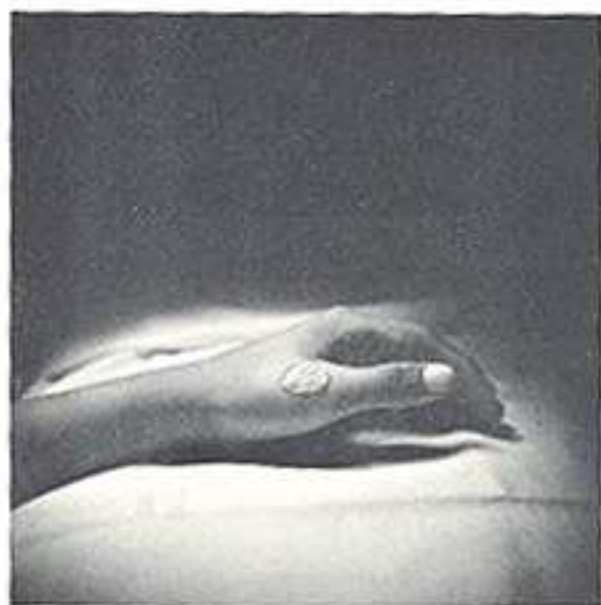


FIG. 2

FIG. 2. Early cicatricial stage of ulcer, pink and slightly scaly.



FIG. 3

FIG. 3. Depigmented, pink, smooth, and glistening scar with a hyperchromic border.

COMMENTS

Since 1910 the existence of cutaneous leishmaniasis in Panama has been amply demonstrated, and it seems strange that only one case of mucous membrane involvement has been reported. In all other respects the clinical manifestations of the disease observed by us corresponded exactly to the well known clinical entity called American cutaneous leishmaniasis.

The epidemiological review of each of the twenty-five cases supports the well known concepts that it is a rural disease, transmitted by an insect vector and acquired during exposure to virgin forest.

The origin of our cases and of those previously reported by other workers in Panama show that the disease is widespread in the Republic with no definite endemic focus.

Finally from the comparatively large number of cicatricial cases discovered on our field trips, we conclude that the disease is by no means rare in Panama and that probably many more cases would be diagnosed if this possibility were con-

considered in all cases of ulcers of the extremities, and if individuals with ulcerations presented themselves more often for diagnosis and treatment.

SUMMARY

Twenty-five new cases of cutaneous leishmaniasis are reported of which seven were in the acute ulcerative stage and eighteen were in the healed or cicatricial stage. The clinical data obtained agree with those of other American authors with the exception of the rarity of mucous membrane involvement, only one case having been reported so far.

The authors consider that present statistics do not represent the true incidence of the disease in the Republic of Panama and that a better knowledge of the disease will rapidly increase the number of confirmed cases.

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