Visceral Leishmaniasis in the La Paz Department of Bolivia: Isoenzymic Identification of Leishmania donovani Chagasi in Human Patients, Dogs and Sandflies Lutzomyia longipalpis.

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A new focus of visceral leishmaniasis was evidenced in the Yungas valleys of the La Paz Department, Bolivia. The first autochthonous human case was diagnosed in 1982 in this area, and later the authors reported two more cases.

More recently, they demonstrated in the same focus the widespread visceral infection in dogs, and the spontaneous infection of the peridomestic sandfly Lutzomyia longipalpis.

The isoenzymic electrophoresis on cellulose acetate plates of the strains isolated from human cases (3), dogs (3) and Lu. longipalpis specimens (5), comparatively with WHO reference strains, allowed to identify them as L. donovani chagasi; the similarity of all the strains led to conclude to the involvement of Lu. longipalpis as vector and to demonstrate the role of the dog as a domestic reservoir in this focus.

The authors discuss the significance and taxonomic consequences of these results.

This work was supported by grants from the French Ministry of Co-operation and Development, the French Ministry of Industry and Investigation, the UNDP/World Bank/WHO Special program for research and training in tropical diseases, and the E.E.C. program "Health & Development".

Cutaneous Leishmaniasis in the La Paz Department of Bolivia: Isoenzymic Characterization of 46 Strains as Leishmania braziliensis braziliensis.

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For five years, a clinical, serological and parasitological study of cutaneous leishmaniasis has been carried out by IBBA in 2 focuses of the La Paz Department: the Yungas valleys and the low subandean area.

46 strains of Leishmania were isolated either by in vitro cultivation or inoculation to hamsters, and maintained by subcultures up to now; among them, 44 were human strains and 2 were isolated from sandflies. The isoenzymic characterization by cellulose acetate electrophoresis, comparatively to WHO reference strains, showed them to be Leishmania braziliensis braziliensis. Some variations were observed in only 3 enzyme systems: Mdh, Msr and Icd.

Therefore, L. b. braziliensis appears to be predominant in this area of Bolivia, widening its distribution to the entire Andean foothills from 250 up to 1800 meters.

As the P. llanosmartinsi and P. yucumensis were indistinguishable from human strains from the same area, and considering their aggressive anthropophilic behaviour, the authors conclude at the involvement of these sandflies in the savatic transmission cycle of L. b. braziliensis in this lowland subandean region of Bolivia.

This work was supported by grants from the French Ministry of Co-operation and Development, the French Ministry of Industry and Investigation, the UNDP/World Bank/WHO Special program for research and training in tropical diseases, and the E.E.C. program "Health & Development".
MEMÓRIAS
DO
INSTITUTO
OSWALDO CRUZ

- Proceedings of the XIII Annual Meeting on Basic Research in Chagas' Disease - Caxambu, MG, Brazil, November 10-12, 1986

- Proceedings of the II Meeting of the Brazilian Society of Protozoology - Caxambu, MG, Brazil, November 9-10, 1986


SPECIAL ISSUE
Suppl. Vol. 81
November 1986