

American cutaneous leishmaniasis developed in a local trauma: clinical, parasitological and molecular diagnosis

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The American cutaneous leishmaniasis (ACL) can cause disfiguring lesions that affect psycho and socially the individual. Local trauma has been associated as a trigger for the development of lesions in patients infected with *Leishmania*. The aim of this study was present a case report of two ACL patients who had the lesion triggered by local trauma. Case 1: a 50-year-old man who developed a lesion that was an ulcerated plaque covering the whole nose after the use of a nasogastric tube to gastric drainage. Case 2: a 27-year-old man who developed the first of his 7 lesions after shocked his right knee at the same local of a scar that had been the consequence of a previously surgery. The Montenegro skin test was positive with an induration of 10 mm (Case 1) and 18 mm (Case 2). The indirect immunofluorescence was positive for anti-*Leishmania* IgG reaching a titer of 40 (Case 1) and 160 (Case 2). The microscopy examination of the scraping stained by Giemsa shows *Leishmania* amastigotes inside macrophages for both. Polymerase chain reaction targeting *Leishmania Viannia* parasites was performed using DNA obtained from peripheral blood and lesion scraping, which were negative and positive respectively for both cases. The Case 1 patient was treated with 180 ampoules of intramuscular meglumine antimoniate in three cycles of 30 days; for case 2 patient was given 96 ampoules into 24 administrations. Asymptomatic leishmaniasis cases where the individual had the contact with the parasite but had not developed the disease has been reported. These cases are not entirely elucidated and in some way, the immune system can contain the infection. The patients' infection happened in an endemic Brazilian region for leishmaniasis and the lesion developed in a weakened body region that had suffered an earlier (Case 1) or later trauma (Case 2). It is in agreement with the *locus minoris resistentiae* concept, which parasites have a tendency to settle in body places of weakened resistance.

Keywords: cutaneous leishmaniasis, clinical laboratory techniques, polymerase chain reaction.

Support: Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq.