Human cutaneous leishmaniasis caused by Leishmania donovani s.l. in Kenya.


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Our laboratory is characterizing Leishmania stabilates and isolates from active leishmaniasis cases. Smears and cultures from aspirates made on different dates from a single lesion on the bridge of the nose of an 18 years old Kenyan male from Nyandarua District contained Leishmania. The isolates, NLB-271 and NLB-271-IA, were characterized by cellulose acetate electrophoresis (CAE) using 20 enzyme systems and by Southern analysis using 2 deoxyribonucleic acid (DNA) probes (pDK10 and pDK20) from a Dakar strain of L. major (MHOM/SN/00/DK1) and a third probe, p7-059 from L. infantum strain ITMAP-263. Digestion of the two Leishmania DNAs with endonucleases HindIII and PstI, followed by hybridization with the 3 probes, revealed DNA fragment banding patterns indistinguishable from those of the L. donovani species complex. The CAE isoenzyme profiles of these 2 Kenyan isolates were indistinguishable from those of Kenyan L. donovani strains we designated as zymodeme Z6. Excluding post-kala-azar dermal leishmaniasis, this constitutes the first human case of cutaneous leishmaniasis caused by L. donovani s.l. in Kenya. Previously, cutaneous leishmaniasis cases in Kenya have been due
to L. aethiopica, L. major and L. tropica only.

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