THE ISOLATION OF LEISHMANIA DONOVANI MON-18, FROM AN AIDS PATIENT IN PORTUGAL: POSSIBLE NEEDLE TRANSMISSION

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Summary:
The spread of HIV infection into leishmaniasis endemic areas has increased the incidence of immunosuppressed patients with kala-azar in Portugal. The dermotropic zymodeme MON-24 of Leishmania infantum has been already isolated from a Portuguese AIDS patient, as in some other Mediterranean countries. In this paper we report the isolation of L. donovani MON-18 from a drug addicted Portuguese patient with clinical visceral leishmaniasis and AIDS, that suggests a mechanically transmitted infection by the use of a shared needle or syringe.


In Portugal Leishmania infantum zymodeme MON-I has been isolated from humans, dogs, foxes (Abranches et al., 1986) and phlebotomine sandflies (Pires et al., 1991). L. infantum zymodeme MON-24 was isolated from phlebotomine sandflies (Pires et al., 1991) and from an immunosuppressed patient (Campino et al., 1994). The spreading of HIV infection into leishmaniasis endemic areas has increased the prevalence of HIV-leishmania co-infections in Portugal and in other Mediterranean countries including Spain, France and Italy (Peters et al., 1990; Altés et al., 1991; Gradoni et al., 1993).

In the present note, we report the isolation of Leishmania donovani (MHOM/PT/92/IMT180) from a 28-year-old drug addicted, Portuguese patient with clinical visceral leishmaniasis (VL) and AIDS. He was born in the Alto-Douro region, a well known endemic area of Portugal with the highest prevalence of VL (Abranches et al., 1990). When aged four he moved to Lisbon, another endemic focus of VL. There is no record he ever had left Portugal.

This Leishmania strain was isolated from a bone marrow aspirate in Novy-MacNeal-Nicolle medium, and was identified at the Laboratoire d’Ecologie Medicale, Montpellier, by isoenzyme electrophoresis using 15 enzymes1 (Moreno et al., 1960; Rioux et al., 1990) as L. donovani zymodeme MON-18.

MHOM/FR/78/LEM 75 L. infantum MON-1 and MHOM/ET/67/HU 3 L. donovani were used as reference strains.

This is the first time that L. donovani has been isolated in Portugal.

Other strains of L. donovani MON-18 have been isolated in Ethiopia and Sudan from both humans and sandflies (Ashford et al., 1992; El-Hassan et al., 1993). Gramiccia et al. in 1982 have found in Italy three strains of L. donovani MON-18 from two dogs and a fox. These results have been considered as unexpected by Moreno et al. (1986).

This isolation of L. donovani MON-18 in a Portuguese human case of VL is highly questionable. A possible explanation is that this VL case was associated with a mechanically transmitted infection acquired by the

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1. Aspartate aminotransferases 1 and 2 (E.C.2.6.1.1), glucose-phosphate isomerase (E.C.5.3.1.9), phosphoglucomutase (E.C.2.7.5.1), glucose-6-phosphate dehydrogenase (E.C.1.1.1.49), 6-Phosphogluconate dehydrogenase (E.C.1.1.1.44), malic enzyme (E.C.1.1.1.40), malate dehydrogenase (E.C.1.1.1.47), isocitrate dehydrogenase (E.C.1.1.1.42), purine nucleoside phosphorylases 1 and 2 (E.C.3.2.2.1.1), mannose-phosphate isomerase (E.C.5.3.1.8), fumarate hydratase (E.C.4.2.1.2), diaphorase (E.C.1.6.2.2) and glutamic dehydrogenase (E.C.1.4.1.5).
use of a needle or syringe shared by drug addicted partners as discussed by Alvar et al. (1994).

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