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CUTANEOUS LEISHMANIASIS IN NORTH SINAI

BY

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Cutaneous leishmaniasis in north Sinai

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During the period from October 1982 to July 1985 cutaneous leishmaniasis was diagnosed in 113 soldiers of the Multinational Force and Observers. MFO stationed in northeast Sinai. Cutaneous lesions varied from 1 to 32 in number per person on exposed areas of the body. They ranged in diameter from 3 to 75 mm.

Leishmania was isolated from cutaneous lesions in 12 MFO soldiers, 1-28 years of age, stationed 60 km southwest of El Ninj, and maintained in vitro using Tanabe's medium Tanabe, 1923 Intrasplenic inoculation of promastigotes from cultures into hamsters according to Schnur et al. 1973 resulted within 12 weeks in the development of cutaneous lesions on the nose, ear, base of tail and foot-pad. Organisms were detected by microscopical examination and by culture from cutaneous lesions, testis and epididymis and only by culture from spleen and bone-marrow, a dissemination pattern typical of cutaneous leishmaniasis. The excreted factor of the promastigotes in culture medium when serotyped according to Schnur & Zuckerman (1977) corresponded to marker strains L-137, serotype A1 and L-133, serotype B2, similar to L. major isolated from Israel south of the Dead Sea Schnur & Zuckerman, 1976. The electrophoretic mobilities of G6-PD, GPI, MDH, MPI, NH, PGM and 6-PGD were studied on Titan III cellulose acetate membranes following the method of Lanham et al. 1981, who also give the enzyme names in full. The composition of the electrode, developer butters, and developing conditions for each enzyme were conducted following the methods of Kreutzner & Christensen 1980 for 6-PGD, Harris & Hopkinson 1976 for MDH and NH, and Lanham et al. 1981 for G6-PGD, GPI, MPI and PGM. The banding pattern for the first 6 enzymes of the Sinai isolates was identical to that of L. major, marker strain L-137, and variant subtype B for 6-PGD. These patterns are similar to those of isolates from western Negev, where transmission involves the sandfly Phlebotomus papatasi and Phlebotomus perniciosus and Peromyscus rodent species Schlein et al 1984. Zimmerman et al in press) and Dees (unpublished data) found the same vector and rodent species in our study area. These biologic and biochemical similarities suggest that this area in northeast Sinai is an extension of the endemic focus of L. major in nearby west-middle Negev.

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**Abstract:**
As per attached.