Protection against Cutaneous Leishmaniasis in Outbred Vervet Monkeys, Using a Recombinant Histone H1 Antigen

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Abstract

Infection with Leishmania major parasites results in the development of cutaneous ulcerative lesions on the skin. We investigated the protective potential of a single, recombinant histone H1 antigen against cutaneous leishmaniasis in an outbred population of vervet monkeys, using Montanide adjuvant. Protection was assessed by challenging the animals with a mixture of vector sand fly salivary-gland lysate and a low dose of in vitro–derived parasites, thus more closely mimicking natural infection induced by L. major. The course of infection in immunized monkeys was compared with that of animals that had healed from a primary infection and were immune. The monkeys immunized with recombinant histone H1 showed a reduced development of lesion size, compared with controls. Our study therefore illustrates the potential use of histone H1 as a vaccine candidate against cutaneous leishmaniasis in humans

Footnotes


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