

A simple spot-test for circulating *Entamoeba histolytica* antigen-antibody complexes in patients with amoebic liver abscess

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Abstract

An enzyme linked immunosorbent assay (ELISA) is described for the detection of *E. histolytica* immune complexes in serum. Antiamoebic antibody purified by affinity chromatography was used both to precoat strips of nitrocellulose membrane and as an enzyme carrier. These strips were incubated with samples of concentrated test serum and the enzyme conjugate. Following treatment with the peroxidase substrate 3-amino-9-ethylcarbazole the presence of *E. histolytica* antigens was visualized as red spots. Blocking of positive test sera with excess antibodies inhibited this reaction. Serum samples from 47 patients with amoebic liver abscess, 43 patients with other enteric diseases and 35 healthy controls were investigated. The spot test was positive in 75 per cent of patients with amoebic liver abscess, and in 12 per cent diseased controls whereas all the healthy controls were negative. The spot test is simple and sensitive and does not require prior separation of the immune complexes. The test is recommended as an aid to the diagnosis in patients suspected to have amoebic liver abscess.