

# **Uses and limitations in the demonstration of specific circulating immune complexes in patients with amoebiasis**

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### **Uses and limitations in the demonstration of specific circulating immune complexes in patients with amoebiasis.**

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## **Abstract**

A micro-enzyme linked immunosorbent assay (micro-ELISA) has been evaluated as a diagnostic test to detect amoebic antigen in polyethylene glycol (PEG) precipitated circulating immune complexes (CIC) in sera from patients with amoebiasis. The immune complexes were captured on rabbit anti-amoebic IgG-coated wells of microtitration plates and the complexed antigen was detected by enzyme linked antihuman immunoglobulins. A titre of greater than 160 for the immune complexes was considered to be of clinical significance. The immunoassay detected amoebic, antigen-specific CIC in 35 (94.5%) of 37 patients with confirmed amoebic liver abscess. Twenty (55.5%) of 36 clinically suspected cases of amoebic liver abscess had amoebic antigen-specific CIC and responded favourably to anti-amoebic chemotherapy. Only two (20%) of 10 cases of non-dysenteric symptomatic intestinal amoebic infection had amoebic antigen-specific CIC. One (10%) of 10 patients with non-amoebic intestinal disorders also had amoebic antigen in CIC. However, none of 15 cases of non-amoebic hepatic disorders that included hydatid disease, metastatic adenocarcinoma, hepatocellular carcinoma, cholecystitis and choledocal cyst, 13 cases of rheumatoid arthritis and 25 apparently healthy subjects had amoebic antigen in CIC. The levels of the amoebic antigen-specific CIC did not correlate ( $p$  greater than 0.05) with either the number of abscess(es) or lobe(s) of the liver involved. However, the levels of antigen-specific CIC were higher ( $p$  less than 0.01) in patients with a liver size of more than 5 cm below the right costal margin. Antigen-specific CIC levels tended to decline or disappear during 3-6 months following completion of therapy.

## **References**

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