

Diagnosis of *Entamoeba histolytica* in symptomatic children, Jeddah City, Saudi Arabia

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Amebiasis is one of the most common parasitic infections worldwide. *Entamoeba histolytica* and *Entamoeba dispar* are two morphologically indistinguishable human protozoa parasites that are genetically distinct species. Differential diagnosis of *E. histolytica* (pathogenic) and *E. dispar* (non-pathogenic) is essential both for treatment decision and public health knowledge. Stool samples from 500 randomly selected children complaining of gastroenteritis were examined microscopically by direct wet smear and subjected to detection of *E. histolytica* antigen by ELISA using TechLab *E. histolytica* II test. *E. histolytica* and *E. dispar* were also identified at molecular level by targeting the 166 bp, and 752 bp sequences of the 18S rRNA gene of *E. histolytica* and *E. dispar* respectively using polymerase chain reaction technique (PCR). The overall prevalence of *E. histolytica*/*dispar* by microscopic examination was 30/500 (6%). *E. histolytica* was positive in 16/500 (3.2%) by antigen detection ELISA technique, whereas 10 samples were not detected microscopically. PCR was able to confirm the presence of *E. histolytica* in 13/16 cases whereas the 3 samples recorded negative were positive by ELISA; even so there was a good agreement $k = 0.86$ between the two techniques. In conclusion, stool antigen detection test by ELISA is recommended over PCR in detecting and confirming *E. histolytica* amoebic enteritis.