Rev. Inst. Med. trop. São Paulo
35(6):581-582, novembro-dezembro, 1993

BRIEF REPORT

ENTAMOEBA HISTOLYTICA ZYMODEMES IN CHILDREN OF OSASCO, SÃO PAULO.

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Entamoeba histolytica is an intestinal human parasite protozoa that can be found either as a non pathogenic commensal or at tissues, causing hemorrhagic colitis or extra-intestinal abscess.

SARGEAUNT et al. (1978, 1984, 1987) established that *E. histolytica* can be differentiated in pathogenic and non pathogenic strains by electrophoretic analysis of its isoenzymes. Twenty two strains have been identified from the zymodemes and only nine were recognized as associated to tissue invasion (SARGEAUNT & WILLIAMS, 1978; SARGEAUNT, 1987, 1988; BLANC et al., 1989).

In Brazil, NOZAKI et al. (1990) studied the zymodemes of *E. histolytica*, obtained from low income people living in the Amazonas region (Belém and Manaus) and Northeast (Recife and São Luiz). In the Amazonas region, pathogenic and non pathogenic strains were isolated whereas in the Northeast only non pathogenic strains were identified.

In this work, fecal samples were collected from 155 asymptomatic children studying at creche of Osasco (Irmã Benedita Constancia, Santo Antonio and Parque Infantil), from May to June of 1989. They aged from 1 to 15 years.

The fecal samples were microscopically analyzed for the presence of *E. histolytica* cysts or trophozoites as well as for other enteroparasites. The following intestinal parasites were found in fifty four (35%) of the 155 examined children: *Giardia lamblia* (25%), *Ascaris lumbricoides* (7%), *Entamoeba coli* (8%), *Entamoeba hartmanni* (11%), *Endolimax nana* (4%), *Trichuris trichiura* (3%), *Entamoeba histolytica* (2.5%), *Hymenolepis nana* (1%), *Necator americanus* (0.6%) and *Dientamoeba fragilis* (0.6%).

An aliquot of each fecal sample was directly inoculated into Robinson medium (ROBINSON, 1968) and incubated at 37°C. All positive cultures were electrophoretically analyzed for the zymodemes according to SARGEAUNT (SARGEAUNT & WILLIAMS, 1978; SARGEAUNT, 1988). The enzymes used as markers were glucose-phosphate-isomerase (GPI), Phosphoglucomutase (PGM), Hexoquinase (HK) and L-malato-$NADP^+$ oxidoreductase (oxalacetatedecarboxilase) (ME). The zymodemes were compared with the standard strains SAW 1015 (pathogenic) and SAW 1719 (non pathogenic). Four fecal samples were positive for *E. histolytica* and all of them were characterized according to the zymodemes as non pathogenic strain, type I (Figures 1-4).

The prevalence of intestinal parasites, including *E. histolytica*, observed in this work reproduced that reported by CHIEFFI et al. (1988). However, those researches did not characterized the strains of *E. histolytica* according to their pathogenicity. In Pernambuco, Northeast of Brazil, the prevalence of *E. histolytica* is higher (14 to 36%) than São Paulo (KOBAYASHI et al., 1991). This can be attributed to the poor sanitation conditions, lack of hygiene and basic sanitation which are more critical in the Northeast of Brazil. Nevertheless, the isolated strains of *E. histolytica* were also non pathogenic.

Studies are in progress in order to correlate symptoms and pathogenicity of *E. histolytica*.

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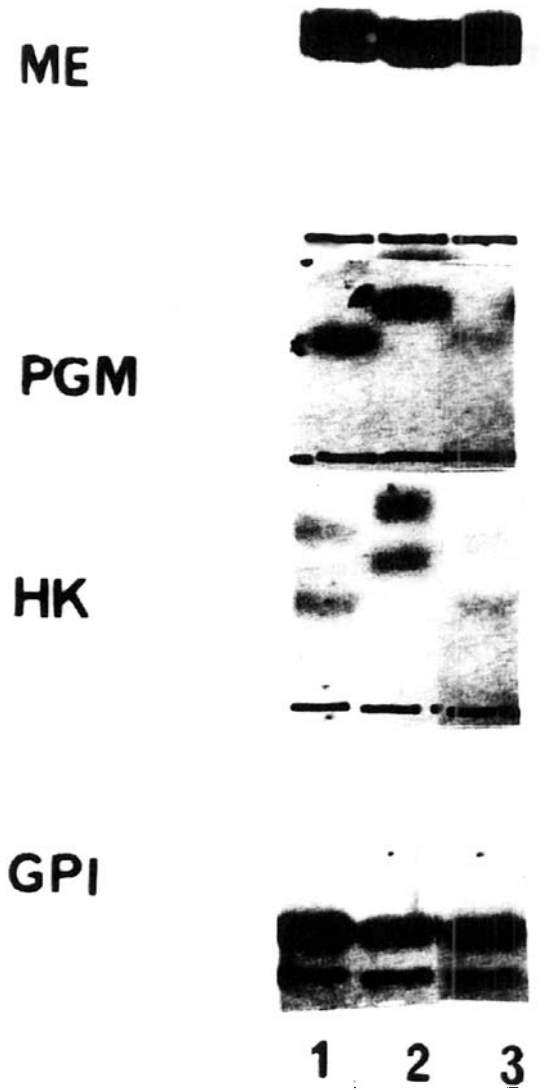

Fig. 1 - TYPICAL ZYMODEME OF E.histolytica OBTAINED FROM PATIENT OF OSASCO, SP. 1: control zymodeme I; 2: control zymodeme II; 3: sample from patient zymodeme I.

ACKNOWLEDGMENTS

This work was supported by the Japan International Cooperation Agency (JICA).

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Recebido para publicação em 14/01/1993
Aceito para publicação em 15/07/1993