

ACUTE DIARRHOEA ASSOCIATED WITH CRYPTOSPORIDIUM SP
IN BELÉM, BRAZIL
(PRELIMINARY REPORT)

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S U M M A R Y

Cryptosporidium sp was detected in faeces from three children suffering from acute diarrhoea. In two cases no other concomitant agents were detected and in a 3rd. this agent was associated with *Entamoeba histolytic*, *Entamoeba coli*, *Endolimax nana*, *Chilomastix mesnili* and *Pentatrichomonas hominis*.

KEY WORDS — *Cryptosporidium* sp — Acute diarrhoea.

Cryptosporidium sp, a coccidian parasite, belongs to family *Cryptosporidiidae*, suborder *Eimeriorina*. It was firstly detected by TYZZER¹³ in 1907 and has recently been described as potentially important enteropathogen, affecting both children and adults throughout the world^{3,4,6,15,16}. This parasite has also been found infecting a wide variety of animals^{2,7,14}.

Recent data on *Cryptosporidium* infection in humans have been obtained from studies carried out in population groups of Costa Rica⁹ and Venezuela¹¹ where it occurs more frequently during the warmer, rainy and humid months of the year (May-August). It may also cause severe disease in patients whose immunity has been affected^{12,17,18} and is a common finding among homosexual patients with AIDS (acquired immunodeficiency syndrome)^{1,8,10}.

In our study, specimens were obtained from 61 children (1-2 years old) who were followed for 9 months, and who belong to a low socio-economic area of Belém, Brazil. 150 Faecal samples were obtained, 94 from diarrhoeic patients and 56 from non-diarrhoeic control patients.

The detection of *Cryptosporidium* was by a modified Ziehl-Neelsen staining⁵, as illustrated in Fig. 1A, which allows a presumptive diagnosis. Confirmation was by both Giemsa (Fig. 1B) and Auramine-rhodamine staining methods. The specimens were also processed for *Salmonella*, *Shigella* and *Escherichia coli* (classic serotypes, enteroinvasive and enterotoxigenic strains), and for rotaviruses, enteroviruses and adenoviruses. Faeces were also examined for intestinal parasites.

Cryptosporidium was found in three (3.19%) of the 94 samples. In two cases (specimen numbers 24.168 and 23.997) this was the only pathogen found, while in the 3rd. (number 24.004) it was associated with *Entamoeba histolytica*, *Entamoeba coli*, *Endolimax nana*, *Chilomastix mesnili* and *Pentatrichomonas hominis*. All non-diarrhoeic control patients were negative for *Cryptosporidium*.

Our findings suggest that *Cryptosporidium* may be a causative agent of diarrhoea among children, since no viruses or enteropathogenic bacteria were detected in any of these cases. We would also like to stress that this is the

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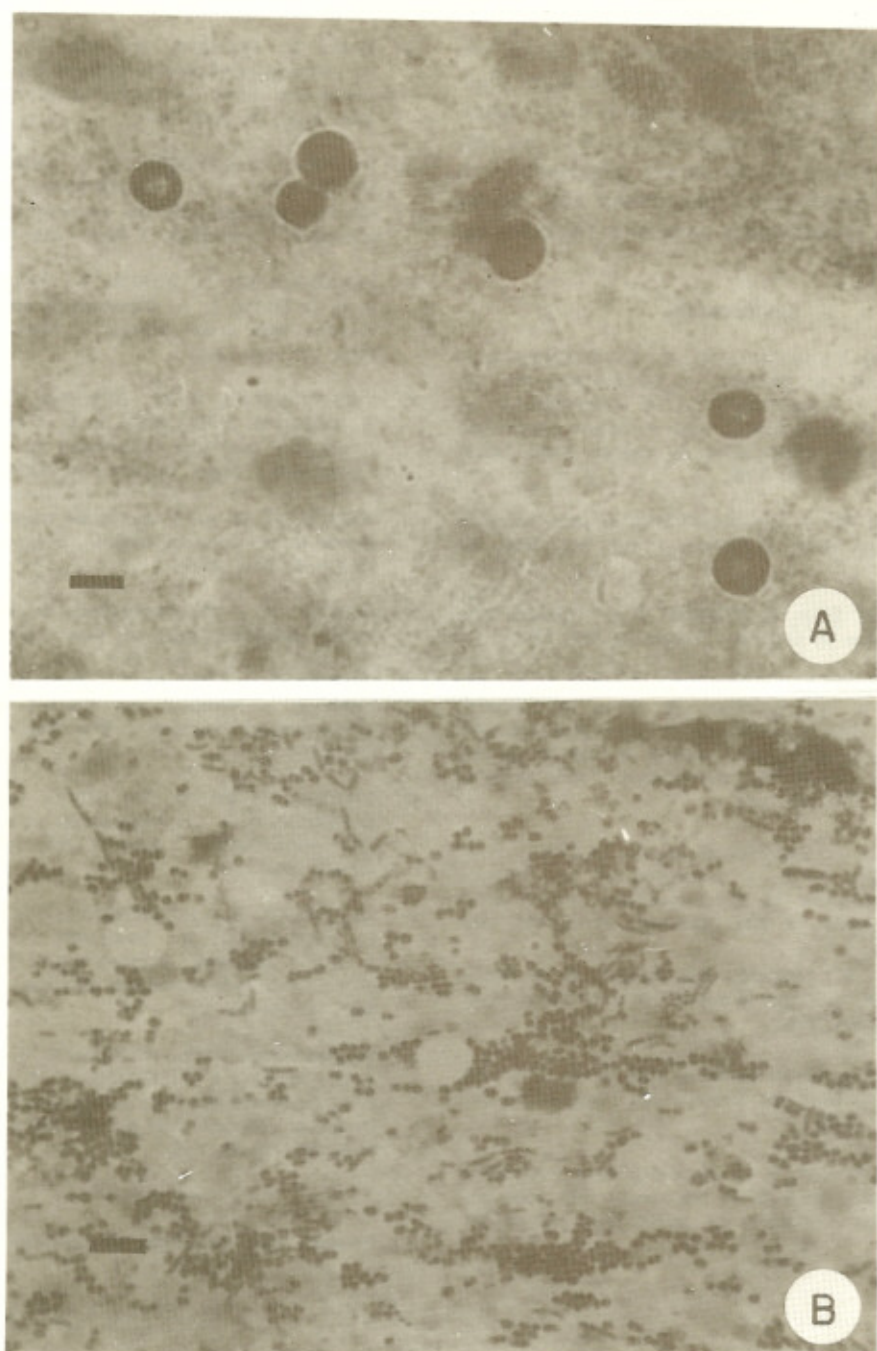


Fig. 1 — *Cryptosporidium* oocysts recovered from stool material and stained by the modified Ziehl-Neelsen (in A, bar = 4 μ m) and Giemsa (in B, bar = 4 μ m) methods

first time that this agent has been detected among patients with diarrheal syndromes in the Amazon region. Additional studies are required in order to elucidate epidemiological aspects of *Cryptosporidium* infection in our region.

RESUMO

Diarréia aguda associada a *Cryptosporidium* sp em Belém, Brasil
(Nota prévia)

Amostras de *Cryptosporidium* sp foram detectadas das fezes de três crianças com diarreia aguda. Em dois casos nenhum outro agente foi registrado, concomitantemente, e no terceiro caso, esse coccídio estava associado com *Entamoeba histolytica*, *Entamoeba coli*, *Endolimax nana*, *Chilomastix mesnili* e *Pentatrichomonas hominis*.

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Recebido para publicação em 19/3/1985.