

Original article

The prevalence of intestinal parasites in paediatric diarrhoeal and non-diarrhoeal patients in Addis Ababa hospitals, with special emphasis on opportunistic parasitic infections and with insight into the demographic and socio-economic factors

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Abstract

Background: Opportunistic intestinal parasitic infections cause severe diarrhoea specially in infants and in immunocompromised people world wide.

Objective: The objective of this study was to assess and determine the prevalence of opportunistic intestinal parasites in paediatric patients with and without diarrhoea in selected hospitals in Addis Ababa.

Methods: A cross-sectional study was conducted on 222 children under five years of age who had diarrhoea and on 74 children who had no diarrhoea in selected Hospitals in Addis Ababa. Single stool specimens were collected and screened for intestinal parasitic infections by using direct and concentrated methods. The Modified Ziehl-Neelsen Staining and Modified Water-Ether Sedimentation methods were used for detecting Coccidial parasites.

Results: Of the 222 paediatric diarrhoeal patients, 61(27.5%) were found to be infected with a variety of intestinal parasites and out of 74 children without diarrhoea 11(14.9%) were found to be infected. Among the emerging opportunistic parasites detected in diarrhoeal children were *Cryptosporidium parvum* (8.1%), *Isospora belli* (2.3%) and *Enterocytozoon bieneusi/ Encephalitozoon intestinalis* (0.5%). Other common intestinal parasites detected were *Ascaris lumbricoides* (0.5%), *Trichuris trichiura* (0.9%), *Giardia lamblia* (6.3%), *Entamoeba histolytica/ E. dispar* (1.4%), *Blastocystis hominis* (5.9%) and *Hymenolepis nana* (0.5%). Opportunistic parasites were found to be significantly associated with diarrhoeal and non-breastfed children ($p < 0.001$). *C. parvum* and *I. belli* respectively were isolated from 83.3% and 80% of diarrhoeal children aged less than 12 months. *C. parvum* and *I. belli* infections were also higher in male children, with a prevalence of 72.2% for *C. parvum* and 80% for *I. belli*.

Conclusion: This study re-affirms and confirms the previously held view that opportunistic parasites can cause diarrhoea in paediatric patients and that it is more prevalent in male, non-breastfed children. The cause of diarrhoea in paediatrics in the absence of identifiable parasitic infections suggests that other infectious agents might be responsible for the diarrhoea. [Ethiop.J.Health Dev. 2005;20(1):39-46]