

Spectrum of enteric pathogens in HIV seropositive & HIV seronegative children

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OBJECTIVES

To identify the various enteropathogens in HIV positive children with and without diarrhea and its correlation with development of diarrheal illness, age and CD4 counts.

METHODS

Fifty HIV positive children (with or without diarrhea) attending the ART clinic at LNH and 50 HIV negative children admitted in the diarrhea ward at LNH were enrolled in this cross sectional study. Stool samples were examined for enteropathogens by wet mount, staining methods (Gram's & Kinyoun's), culture & ELISA for Cryptosporidium antigen and Clostridium difficile toxins. Blood (3ml) was collected for CD4 count using FACS.

RESULTS

Out of 50 HIV positive patients, 18 (36%) children had diarrhea of which 61.5% presented with chronic diarrhea. 27 pathogens were found associated with diarrheal illness which included Cryptosporidium (55.5%), Candida (27.75%), Giardia lamblia (22.2%), C.difficile (16.65%) and Cyclospora (11.1%). The spectrum of enteropathogens in HIV nega-

tive children with diarrhea included Candida (36%), Cryptosporidium (14%), EPEC (10%), Ascaris (6%), Vibrio (6%) and Shigella (2%). In this study the major cause of diarrheal illness in HIV positive children were opportunistic infections mainly coccidian parasites and fungi. Bacterial pathogens which cause majority of diarrheal illnesses in non HIV infected cases constitute a low burden in the HIV positive group. The diarrheal illness was more in children aged 4-8 years (56%) and with CD4 count less than 500 cells/ μ l

CONCLUSIONS

The study group had significantly higher number (68%) of parasitic infections than control group (22%) with coccidian parasites more in study group (46%) than controls (14%). Bacterial pathogens were more in HIV seronegative group (42%) than in study group (18%). Identification of enteropathogens in HIV seropositive patients is important for institution of appropriate therapy and reduction of morbidity and mortality.