Genotypic Characterization of Cryptosporidium in HIV-Infected Patients in Thailand

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Abstract

Cryptosporidium is an intestinal protozoan parasite that causes cryptosporidiosis. It also has been recognized as an important opportunistic pathogen affecting HIV-infected patients. It has been associated with chronic diarrhea, decreased quality of life, and shortened survival in HIV-infected patients. The prevalence of cryptosporidiosis in HIV-infected patients is 5-50%. However, in Thailand information about the prevalence of each genotype and subgenotype/subtype of Cryptosporidium in HIV-infected patients is less available. In this study, genotypic characterization of Cryptosporidium isolated from HIV-infected patients in Thailand was investigated using polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) analysis of 18 SSU rRNA genes. The fecal samples were collected during the period from 1999 to 2004. Among 110 Cryptosporidium isolates, five genotypes were identified which are C. hominis (36.4%), C. parvum (10%), C. meleagridis (19.1%), C. felis (16.4%) and C. canis (16.4%). These data indicate that extensive genotypic diversity among Cryptosporidium was observed among Cryptosporidium isolates and C. hominis is the predominant genotype in HIV-infected patients in Thailand.

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