

## Genotypic Characterization of *Cryptosporidium* in HIV-Infected Patients in Thailand

Umaporn Thathaisong\*<sup>1</sup>, Saovane Leelayoova<sup>2</sup> Yupin Suputtamongkol<sup>3</sup> and Mathirut Mungthin<sup>2</sup>

<sup>1</sup>*Department of Microbiology, Faculty of Science, Burapha University, Chonburi, Thailand;*

<sup>2</sup>*Department of Parasitology, Phramongkutklao College of Medicine, Bangkok, Thailand;*

<sup>3</sup>*Department of Medicine, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand*

### 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.

\*Corresponding author. E-mail : umaporn@buu.ac.th