

Abstract

In addition to polymerase chain reaction (PCR) develop last year , nested PCR, a more sensitive method for detection of *Cryptosporidium* was used in this year . A new set of primers for nested PCR was redesigned for *Cyclospora*, and the restriction profiles of the PCR production were used for differentiation of pathogenic vs. non-pathogenic. Acid-fast stain technique and PCR were used for analysis of water samples collected.

One sample each was collected from Ho-Ping of Taichung county and Jen-Ai of Nan-Tao county ; two sample each from Wu-Lai of Taipei county and Hsin-Yee of Nan-Tao county. Positive results were shown in the samples from Wu-Lai and Hsin-Yee by microscopy, and in the sample from Ho-Ping and Hsin-Yee by PCR. Although DNA fragment of 382 bp by nested-PCR for *Cyclospora* were shown in the water samples of Ho-Ping 、 Hsin-Yee and Jen-Ai, the results of RFLP shown those were not *Cyclospora cayetanensis*.

A total of 109 stool samples from students in Wu-Lai Primary School, 11 of them were positive by acid-fast stain technique, whereas only 3 (3%) of them were positive by PCR for *Cryptosporidium*.

It is shown the detection of *Cryptosporidium* and *Cyclospora cayetanensis* in the water system can be carried on by PCR.

Keyword : *Cryptosporidium* ; *Cyclospora* ; mountain area ; PCR ; RFLP