

Polymerase chain reaction detection of *C. pseudotuberculosis* in the brain of mice following oral inoculation

ABSTRACT

The aim of present study was to detect the presence of *C. pseudotuberculosis* in the brain of the mice following oral inoculation as a model using PCR. Caseous lymphadenitis is a chronic and subclinical disease of sheep and goats which has universal distributions, presenting enormous animal and flock prevalence. Total of 16 mice were used for this study, 8 mice were inoculated orally with 1.0 mL sterile phosphate buffered saline pH 7, while another 8 mice were inoculated with 1.0 mL of 10⁹ colony forming unit of *C. pseudotuberculosis*. Seven different organs were collected during post mortem for the detection of *C. pseudotuberculosis*. The result indicated 3 positive samples in lymph nodes, 5 in the brain and 1 in the liver. The PCR used in the present study may successfully be applied for the detection and diagnosis of *C. pseudotuberculosis* in the brain of the mice following oral inoculation.

Keyword: Brain; *C. pseudotuberculosis*; Detection; Mice; Oral inoculation; PCR