

POLYMERASE CHAIN REACTION DETECTION OF *PASTEURELLAMULTOCIDA* TYPE B IN MICE FOLLOWING ORAL INOCULATION WITH THE BACTERIA

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Abstract

Pasteurella multocida type B is an etiological agent of haemorrhagic septicaemia in cattle and buffaloes. The disease is commonly fatal and considered as one of the most economically important cattle disease in Southeast Asia including Malaysia. This study described the detection of *P. Multocida* type B using Polymerase Chain Reaction (PCR) from the organs of the mice inoculated orally with the bacteria. In this study, 16 male and healthy mice aged 3-weeks were selected; they were divided into two equal groups of 8 mice each. Mice in group 1 were inoculated orally with 10⁹ CFU of *P. multocida* type B, while the mice from group 2 were inoculated orally with PBS, pH 7. The mice were observed for 5 days (120 hours). Post-mortem was conducted on mice which died within 5 days of the experimental period and organs such as heart, lung liver, spleen, stomach, small intestine and large intestine were collected and subjected to isolation and identification of the bacteria on blood agar. The organs collected from the mice showed positive results using PCR which detected *P. multocida* type B. On the contrary, *P. multocida* type B was not isolated from the organs of the surviving mice which were culled at the end of the experiment.

Keywords: *Pasteurella multocida* type B, oral inoculation, polymerase chain reaction (PCR), mice