

2017 AS A MODEL FOR PATHOGENIC STUDY OF
Brucella melitensis B:2 INFECTION

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GOAT AS A MODEL FOR PATHOGENESIS STUDY OF *Pasteurella multocida*
B: 2 INFECTION

By

Gopala Krishnan s/o Rajamanickam

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LIST OF ABBREVIATIONS

cfu	colony forming unit
BHI	Brain-heart infusion
DNA	Deoxyribonucleic acid
HS	Haemorrhagic Septicaemia
°C	degree celcius
PBS	phosphate buffered saline
SPC	Standard Plate Count

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ABSTRACT

A study was conducted on pathogenesis infection of goats with *P. multocida* B: 2 at the goat's cage, Faculty Science and Technology, KUSTEM. Six clinically healthy goats of about 7 months old were divided into 2 equal groups. The goats were divided into two groups, namely group A and group B. Group A was treated intratracheally with 1ml inoculum containing 5.0×10^8 colony forming units (cfu) / ml of live *P. multocida* B: 2. Group B was remained as untreated control goats. All the goats were slaughtered after 2 weeks post-challenge. The extent of pneumonic lung, liver and kidney lesions was determined using histological technique and bacterial isolation from all respective organs. The results emphasized that *Pasteurella multocida* B: 2 is able to reproduce Haemorrhagic Sapticaemia (HS) in goat thus making it suitable animal for the disease model.

KAMBING SEBAGAI MODEL DALAM PATHOGENESIS JANGKITAN BAKTERIA *PASTEURELLA. MULTOCIDA* B: 2

ABSTRAK

Satu kajian tentang perkembangan jangkitan bakteria *Pasteurella multocida* B: 2 telah dilaksanakan ke atas kambing di kandang kambing, Fakulti Sains dan Teknologi, KUSTEM. Sebanyak enam ekor kambing yang berumur 7 bulan dan sihat secara klinikal telah dipilih dan dibahagikan sama rata kepada dua kumpulan yang terdiri daripada kumpulan A dan kumpulan B. Kumpulan A merujuk kepada kambing yang disuntik melalui trakea dengan 1ml inokulum yang mengandungi 5.0×10^8 unit cfu/ ml *Pasteurella multocida* B: 2. Sementara itu, kumpulan B merujuk kepada kumpulan yang bertindak sebagai kawalan. Kesemua kambing disembelih selepas dua minggu, bagi menentukan keterukan lesi pneumonia pada paru-paru, hati dan ginjal secara histologi dan pengasingan semula *P. multocida* B: 2 daripada organ-organ tersebut. Keputusan kajian ini menunjukkan bahawa *Pasteurella multocida* B: 2 mampu dihasilkan semula daripada Haemorrhagic Septicaemia (HS) terhadap kambing dan membuktikan bahawa kambing merupakan haiwan yang sesuai dalam kajian perkembangan bakteria *P. multocida* B: 2.