

The study of caseous lymphadenitis: dose dependent infection of *C. pseudotuberculosis* in mouse model via oral inoculation

ABSTRACT

The use of different dependent doses design offers unique opportunities to advance the study of diseases through the investigation of their respective outcomes at multi-disciplinary level. Such design can increase our understanding of the factors that shape disease establishment, course development and distribution of lesions in space and time. This paper utilizes three different doses of *C. pseudotuberculosis*, 10³, 10⁵ and 10⁷ colony forming unit (CFU/ml) and illustrates their potential of disease induction at a range of histo-pathological and molecular scales. A mouse model is used to demonstrate the potential aspects of the doses in relation to the outcome of interest. Our approach is based on comparing the observed patterns of clinical features, postmortem and gross finding, as well as histo-pathological and molecular levels.

Keyword: Caseous lymphadenitis; Dose dependent infections; Mouse; Oral inoculation; Pathological features; PCR