

Histopathology and immunohistochemistry assessments of acute experimental infection by *Brucella melitensis* in bucks

ABSTRACT

Brucellosis in male goats is characterized by arthritis, orchitis and epididymitis, which may induce infertility. Nevertheless, these lesions were categorized as chronic while acute lesions had not been described. This study investigates the histopathological and immunohistochemistry reactions in organs of bucks acutely infected by *Brucella melitensis*. Results: Only testis and prepuce of acutely infected bucks showed significantly severe histological lesions. Other internal organs had mild to moderate lesions. However, positive immunohistochemistry stainings were observed in organs except the bulbourethral gland. There was a significant positive correlation between the distribution of *B. melitensis* and IHC intensity but no significant correlation between the IHC intensity and histopathology lesions. Conclusion: The results indicate that acute brucellosis did not lead to clinical presentation, although *B. melitensis* was well distributed in various organs of bucks.

Keyword: Histopathology; Immunohistochemistry; *Brucella melitensis*; Bucks