Detection of Brucella melitensis in seropositive goats.

ABSTRACT

This study reports an association of Brucella melitensis with pathological changes in seropositive goats. 1,054 serum samples were subjected to the Rose Bengal Precipitation Test (RBPT) of which 27 were positive. Serum samples were re-collected from the 27 seropositive goats 2 weeks later and subjected to RBPT for antibody titres. Uterii, mammary glands and supra-mammary lymph nodes were examined for pathological changes, immunoperoxidase (IP) staining, bacterial isolation and PCR to detect B. melitensis. Results revealed that of the 27 goats tested, 41% were Category I (antibody titre = 2), 33% Category 2 (titre = 4) and 26% Category 3 (titre = >4). Goats in Categories 2 and 3 revealed more severe pathological changes with the latter being most severe. All goats in Category 3 showed positive reaction to IP compared with 56 and 18% in Categories 2 and 1, respectively. Three (33%) goats in Category 2 and 3 (43%) goats of Category 3 were B. melitensis positive either by isolation or PCR. There was strong correlation between the antibody titre, pathological lesions and presence of B. melitensis.

Keyword: Brucella melitensis; Goats; Detection; Pathological changes.