

Detection of *Brucella* in infected bull testis by using PCR technique

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Introduction

Bovine brucellosis is usually caused by *Brucella abortus*, less frequently by *B. melitensis*, and occasionally by *B. suis*. Infection is widespread internationally. Several countries in Northern and Central Europe, Canada, Japan, Australia and New Zealand are believed to be free from the agent(1), (2). The disease is usually asymptomatic in non pregnant females. Following infection with *B. abortus* or *B. melitensis*, pregnant adult females develop a placentitis usually resulting in abortion between the fifth and ninth month of pregnancy. In acute infections, the organism is present in most major body lymph nodes. Adult male cattle may develop orchitis and brucellosis may be a cause of infertility in male (3), (4). Hygromas, usually involving leg joints, are a common manifestation of brucellosis in some tropical countries and may be the only obvious indicator of infection; the hygroma fluid is often infected with *Brucella*(5). Presumptive evidence of *Brucella* is provided by the demonstration, by modified acid-fast staining of organisms, of *Brucella* morphology in abortion material or vaginal discharge, especially if supported by serological tests(6). The polymerase chain reaction methods provide additional means of detection. Whenever possible, *Brucella* spp. should be isolated using plain or selective media by culture from uterine discharges, aborted fetuses, udder secretions or selected tissues, such as lymph nodes and male and female reproductive organs. Species and biovars should be identified by phage lysis, and by cultural, biochemical and serological criteria, Polymerase chain reaction (PCR) can provide both a complementary and biotyping method based on specific genomic sequences(7). To the best of our knowledge there is no similar study in Iraq about orchitis in bull infected with *Brucella*.

References :

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