

Pathological and Molecular Diagnosis of Caseous Lymphadenitis in Chinkara Deer (*Gazella Bennettii*), in Pakistan

Authors : Mudassar Iqbal, Riaz Hussain, Khalid Mehmood, Farah Ali, Fazal Mahmood, Abdul Ghaffar

Abstract : *Corynebacterium pseudotuberculosis* is an important cause of caseous lymphadenitis (CL), a complex, chronic devastating and destructive disease of small ruminants. In present study, postmortem examination of Chinkara deer (n=25) was conducted in year 2014. Pus samples suggestive of CL were collected from the superficial lymph nodes, liver, spleen and lungs during necropsy and subjected to standard microbiological procedures for isolation and molecular analysis of bacterial pathogens. Pus samples collected from carcasses (25) presenting clinical lesions of *C. pseudotuberculosis* infection was identified in 19 (76%) carcasses on the basis of culture characteristics. The frequency of *C. pseudotuberculosis* bacterium was higher in older animals as compared to young animals. Grossly, multiple tubercles of variable size having caseous material were observed in liver, lungs, spleen and lymph nodes. Histopathologically, tissue sections from all the visceral organs were extensively plugged with abscess. In present study specific prolineiminopeptidase (PIP) gene of the *C. pseudotuberculosis* was amplified by the Polymerase chain reaction technique (PCR) in 17(25) cases. The efficient and reliable molecular analysis along with necropsy findings in present study can be used as valuable approach for diagnosis of caseous lymphadenitis in small ruminants.

Keywords : Chinkara deer, *Corynebacterium pseudotuberculosis*, Caseous lymphadenitis, PCR

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