

Molecular Screening of Piroplasm from Ticks Collected from Sialkot, Gujranwala and Gujarat Districts of Punjab, Pakistan

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Abstract : Ticks (Acari: Ixodidae); bloodsucking parasites of domestic animals, have significant importance in the transmission of diseases and causing huge economic losses. This study aimed to screen endophilic ticks for the Piroplasms using polymerase chain reaction in three districts Sialkot, Gujranwala and Gujarat of Punjab, Pakistan. Ticks were dissected under a stereomicroscope, and internal organs (midguts& salivary glands) were procured to generate pools of optimum weights. DNA extraction was done through standard protocol followed by primer specific PCR for Piroplasma spp. A total of 22.95% tick pools were found positive for piroplasma spp. In districts, Sialkot and Gujranwala Piroplasma prevalence are higher in riverine animals while in Gujarat Prevalence is higher in non-riverine animals. Female animals were found more prone to piroplasma as compared to males. This study will provide useful data on the distribution of Piroplasma in the vector population of the study area and devise future recommendations for better management of ruminants to avoid subclinical and clinical infections and vector transmitted diseases.

Keywords : babesia, hyalomma, piroplasmposis, tick infectivity

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