

Prevalence of Brucellosis among the Cattle in Kilinochchi District

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Brucellosis is one of the most contagious, communicable and zoonotic disease with high rate of morbidity and lifetime sterility in cattle and it leads to significant economic losses. Brucellosis occurs throughout the world and can spread animal to human. In recent years Brucellosis has increased in intra/inter specific infection rates due to its poor management mostly in developing countries. A cross section study was conducted to investigate the prevalence of brucellosis in Karachchi, Kandawalai, Pachilaipalli and Poonagary veterinary divisions of the Kilinochchi district during the period of end of October 2018 to early April 2019. The objectives of the study were, determine the prevalence of brucellosis in Kilinochchi district, to study the brucellosis among different breeds of cattle combined with different lactation cycle and to study the risk factors associated with brucellosis. Among the 2562 cattle farms in Kilinochchi district, 208 farms were randomly selected for the study using table of random numbers. 208 individual milk samples and 72 bulk milk samples, 95 blood samples were tested for brucella antibodies using Milk Ring Test (MRT), Rose Bengal Plate test (RBPT) and Complement Fixation Test (CFT). The overall prevalence of brucellosis cattle in Kilinochchi district was 10.6 % (n=29). Prevalence of brucellosis was higher in Karachchi division compared to other veterinary divisions. 18.8 % (n=29) were positive for MRT in Kilinochchi district. Among these MRT positive samples, 20.0 % (n=14) were from 1st lactation, 12.0 % (n=9) were from 2nd lactation, 16.7 % (n=6) were from 3rd lactation and 37.0 % (n=10) were from 4th lactation. Among the blood samples 12.5 % (n=26) were positive for RBPT. Among these positive results (MRT, RBPT) 10.6 % (n=29) were positive for complement fixation test (CFT). Prevalence of brucellosis was higher in jersey cross breeds (15 %, n=17) compared to other breeds (sahiwal 3.7 %, local breed 8.2 %) in Kilinochchi district. Risk factors associated with brucellosis were abortion history and retained placenta. Brucellosis is an important livestock disease in Kilinochchi.

Keywords: Brucellosis, Complement fixation test, Milk ring test, Reproductive disorders, Rose Bengal plate test