

Blood parasites and blood cell analysis of dogs reported to veterinary clinics in selected areas in Matara district, Sri Lanka

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Dogs acts as reservoir host or intermediate hosts for number of disease cycles which seriously affect humans. Present study aimed to identify the common blood parasites found in dogs to determine presence of various species of blood parasites and blood cells with skin type (damaged or non-damaged) of dogs in Matara area. Blood samples were collected from 30 stray and pet dogs and tested for blood parasites. RBC, WBC and Platelets of blood samples were counted using the haemocytometer method. Findings of the present study showed that out of 30 dogs, 9 (30%) had damaged skins when they were present to the veterinary clinics in Matara area. Only *Babesia* spp. (11.10%) was found in blood smears of dogs with damaged skin. *Babesia* spp. (19.10%) and microfilaria of *Dirofilaria* spp. (19.10%) were detected in blood smears of dogs with undamaged skin. According to the findings, mean value of RBC in damaged skinned dogs (1.0504×10^7) was lower than the dogs of undamaged skins (1.1417×10^7). Mean values of WBC and platelets were higher in dogs with damaged skin (4.8061×10^4 , 9.5311×10^6 respectively) than in dogs with undamaged skin (2.6260×10^4 , 6.2700×10^6 respectively). These differences were not statistically significant. Findings of the present study indicate the possibility of association of blood parasites with the skin type of dogs and further studies are needed for the confirmation of these findings.

Keywords: blood parasites, dog, RBC, WBC, platelets, *Babesia* spp. and *Dirofilaria* spp.

Acknowledgements: Science faculty research grant (RU/SF/RP/2018/03)

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