

Study on prevalence of Cryptosporidium in livestock (cattle/water buffalo) in Western Nepal

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A cross sectional study was conducted from November, 2014 to June, 2015 in calves of cattle and buffalo reared near the river basins of Mahakali and Karnali. Samples were examined for the presence of Cryptosporidium by Ziehl-Neelsen Staining technique after concentration method with centrifugation. Prevalence of Cryptosporidium infection in cow and buffalo calves in relation with animal factor, social & geographical factors and management practices were studied in the present study. Out of 350 fecal samples tested, 170 were positive showing an overall prevalence of 48.6% for Cryptosporidium in cattle and buffalo calves. Cow calves (50.3%) had high prevalence than the buffalo calves (47.3). As for age, the prevalence of infection was highest in 3-6 months (53.7%) old age group of both the cow and buffalo calves. A higher prevalence of Cryptosporidium infection was observed in male (53.1%) in comparison to female (45.3%) cow and buffalo calves. Likewise, the prevalence was higher in exotic animals (50%) in comparison to the indigenous (46%). In the present study, highest prevalence was observed in Bardiya (57.7%) followed by Kanchanpur and Kailali. Similarly, higher prevalence was observed in Karnali river basin (50%) as compared to Mahakali river basin of Western Nepal. Moreover, the prevalence was higher in the farms with thatched shed (49.1%), more hours of grazing (52.2%), grazing in river side (54.5%) and private land (56.7%) and use of surface water sources (52.6%) for livestock. Current study suggests that Cryptosporidiosis is evident in cattle and buffalo population of Western Nepal. As the parasite having potential of zoonotic transmission, Cryptosporidiosis must be ruled out while diagnosing the enteric infections in livestock and human beings. Moreover, better sanitary practice should be practiced in human settlements and livestock farms of the area.

Biography

Tapendra Prasad Bohara has completed his BVSc & AH from Tribhuvan University, Nepal. He is one of the recognized early careers Veterinary Scientist of Nepal. He has worked with various government and non-government organizations for 6 years. Currently, he is the Veterinary Officer of Government of Nepal. He has published more than 6 papers in reputed journals and proceedings.

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