# PREVALENCE OF ZOONOTIC GASTROINTESTIONAL HELMINTH PARASITES IN PET AND STRAY DOGS OF RUPANDEHI DISTRICT, NEPAL

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Dogs are associated with zoonotic disease transmission including the helminth parasites. Soil contamination with dog faeces facilitates the transmission of zoonotic parasites.

Cross-sectional study.

Out of 400 dogs fecal sample examined, 235(58.75%) were positive for presence of at least one of the zoonotic helminth. The prevalence of helminth parasites was significantly higher in stray dogs (78.5%) than in pet dogs (39%) ($p<0.05$).The common parasites observed in present study were *Ancylostoma spp*.(46.81%),*Toxocara canis* (37.87%), *Taenia/Echinococcus spp*.(9.36%), *Dipylidium caninum*(22.98%) ,*Trichuris vulpis* (5.73%) and *Diphyllobothrium* (2.98%).

The overall prevalence was significantly higher in the pet dogs of age up to 1 years (52.44%) than the pet dogs of age above 1years (29.66%). Single helminth parasitic infection was more common (78.72%) than concurrent mixed infection (21.28%) among positive samples. The prevalence of zoonotic helminth parasites was significantly greater in male pet dogs (46.97%) than in female pet dogs (23.53%) and in stray dogs prevalence was 83.48% in male dogs and 71.76% in female dogs. The prevalence was high in crossbred dogs (44.16%) than in purebred dogs (35.77%) which is not statistically significant ($p>0.05$). Significantly higher prevalence of gastrointestinal zoonotic helminthes was found in non-dewormed dogs(61.41%) than in dewormed dogs(36.81%).

Application of the One Health concept, in which the collaborative work of multiple disciplines aims to help attain optimal health for people, animals and our environment, has to be advocated to improve the management of intestinal parasitic helminth infections and to minimize the risk of exposure for humans and dogs both.