

ABSTRACT

Background:

There is no information on human and animal *Cryptosporidium spp.* in Njoro sub- county. The risk posed to humans and animals within the sub-county is therefore unknown.

Materials and Methods:

A total of 1476 animal and 378 human fecal samples were evaluated. Multivariate logistic regression was used to evaluate association between infection status and the predisposing factors. Results were expressed as odds ratio (OR) with a 95% confidence interval. Chi-square and Maentel–Haenszel tests were used to quantify relationships among variables.

Results:

Prevalence of *Cryptosporidium spp.* was 9.8% in humans, 10.8% in cows, 19.6% in sheep and 4.5% in goats. Prevalence in humans was significantly higher in females 12/37. Infection was highest in the elderly (27.27%), and significantly lower in adolescents and adults at 8.66% and 9.59%, respectively. Goats had lowest overall parasitization at all levels, while sheep had the highest parasitization at levels (+1 and +2). Relatively, humans had the highest parasite counts +3 cases (1.5%).

Conclusion:

Cryptosporidium spp. is prevalent in Njoro sub-county and domestic animals are important reservoirs and a potential source of zoonosis in humans. Children, elderly and females are at increased risk of infection, especially during rainy season. The study recommends maintenance of proper sanitation when handling domestic animals, treatment of drinking water and use of alternative safer sources of water in order to reduce infection.

Keywords: Cryptosporidiosis, Epidemiology, Prevalence, Zoonosis