

Prevalence of Gastrointestinal Parasitic Infection in Different Age Groups of Goats

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Goats are an excellent source of meat and milk for human consumption. Parasitic infestations lead to significant health concerns and huge economic losses in goat farming. The aim of the present study was to determine the occurrence of parasitism and to study the relationship between the prevalence of gastrointestinal parasites with age of the indigenous goats. The study was conducted at a livestock farm, at Puliyankulam, Vavuniya, Sri Lanka in March 2021. Eighteen indigenous goats were randomly selected and they were separated into three groups (n = 6 each group): (i) below one-year, (ii) one to three years, (iii) above three years. They were kept in an extensive management system with an improper deworming programme. Faecal samples were analysed to determine the eggs per gram (EPG) and oocysts per gram (OPG) of faeces by means of modified McMaster techniques and morphological differentiation was done by means of floatation techniques. All the tested samples were positive for either parasitic eggs or oocysts. Among those samples, protozoan, nematode and cestode species were found based on their morphological characteristics. Protozoan: *Eimeria* spp. was observed with the highest ($P < 0.05$) prevalence (56.26%), followed by Nematodes: *Trichostrongyle* spp. (29.90%) and *Strongyloides* spp. (9.72%) followed by Cestode: *Monezia* spp. (3.09%) and Nematodes: *Trichuris* spp. (1.03%). Based on this study, a significant difference was found ($p < 0.05$) among gastrointestinal infestations of different age groups. *Trichostrongyle* spp. was higher ($p < 0.05$) in below one-year goats (43.35%) followed by above three years goats (29.56%) and least was observed in one to three year goats (27.09%). Highest ($p < 0.05$) *Strongyloides* spp was observed in below one-year goats (59.09%), followed by above three year (36.36%) and one to three year goats (4.55%). Highest ($p < 0.05$) prevalence of *Trichuris* spp. was observed in above three year (57.14%), followed by one to three year (28.57%) and below one-year goats (14.29%). *Monezia* spp. was only observed in below one-year goats (100%). According to the study young indigenous goats were more susceptible to gastrointestinal infestations than matured.

Keywords: Age, Indigenous Goats, parasites, Parasitic eggs, Prevalence