Int.J.Curr.Microbiol.App.Sci (2020) *9*(1): 1760-1763

International Journal of Current Microbiology and Applied Sciences
***ISSN: 2319-7706* Volume 9 Number 1 (2020)**
Journal homepage: http://www.ijcmas.com

Original Research Article https://doi.org/10.20546/ijcmas.2020.901.196

Prevalence of Gastro Intestinal Parasites in Livestock and Poultry in Southern Part of Kanchipuram District, India

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Keywords

Prevalence, Gastrointestinal parasites, livestock and Poultry

Article Info

Accepted:
15 December 2019
Available Online:
20 January 2020

A B S T R A C T

In this study, 569 fecal samples were screened for parasites egg to know the prevalence of gastrointestinal parasitic infection in this district. In our study, 50% of dung samples were showing negative for helminthitic infection. High prevalence of coccidiosis and followed by Strongyles infection in cattle, goat, poultry and rabbit. The results were indicating that all the livestock owners aware of deworming of livestock and poultry. To achieve 100 per cent deworming, peripheral centre of TANUVAS to create awareness on newer techniques in deworming like FMD vaccination to be followed strictly.

Introduction

Gastro intestinal parasites affects the health of farm animals including poultry by erosion of the digestive tract. It causes interference in the digestion by malabsorbtion thereby decreases milk, egg and meat production. To combat those problems, requisites awareness on the prevalence of gastro intestinal parasite in their geographical location. It is an agricultural region with small scale livestock and poultry farms one of the most important component for substantial income. Hence, this study was taken to know the prevalence of gastro intestinal parasites through fecal examination.

Materials and Methods

A total of 569 fecal samples were collected from cattle, goat, desi chicken and rabbits in and around Melmaruvathur during mass contact programme and farm visit. The samples were collected in prelabelled container and samples brought to the Veterinary University Training and Research Centre, Melmaruvathur and dispatched to Central University Laboratory, TANUVAS, Chennai 51. The samples were screened for parasitic eggs to know the prevalence of gastro intestinal parasites. The fecal sample was subjected to simple qualitative methods as direct smear examination and

sedimentation technique. All the samples were screened for presence of parasitic eggs and oocyst and percentage of prevalence recorded.

Results and Discussion

In the faecal samples screened under simple qualitative techniques, eggs were identified based on the morphological characters of eggs such as *Amphistome*s sp., *Eimeria* sp., *Strongyle* sp., Strongloid sp., *Trichuris* sp and Toxocara species in dairy cattle. In goat, *Eimeria* sp., *Amphistome* sp., *Strongyle* sp., Strongloid sp., *Trichuris* sp and cestodal eggs. In poultry, *Eimeria* sp., Capillaria sp. and Ascarids sp. In Rabbits, Oocyst and *Strongloides* species of parasitic eggs were identified and tabulated in Table.1

In this study, more than 50% of samples were showing negative for helmitic infection which indicates there was no rainfall and scarcity of water logging ponds led to decrease transmission of helmintic infections in the study area.

In cattle, prevalence of eggs of *Eimeria* sp, *Strongyle* sp., *Strongyle* with Eimerai sp., *Strongyle* with *Amphistome* sp., Strongloid sp., *Trichuris* sp and Toxocara were 4.2,5.8 2.6, 0.6, 3.9, 0.6 and 0.6 per cent respectively. Stongyles egg and Eimerai Oocyst is more prevalent than other species. This finding concurs with finding of Muralidharan (2005). They reported that *Strongyle* was more prevalent than other parasitic eggs. The prevalence of *Eimeria* in young animals more common than adult animals. The sporulated oocyst may be transferred by licking. In goat, *Amphistome* sp,*Strongyle* sp, *Eimeria* sp, *Strongyle* sp, *Trichuris* sp, *Strongyle* sp and *Eimeria* Ocyst, Strongloid sp and eggs of cestodes were 0.5, 29.5, 5.3, 5.1, 0.5, 2.3, 1.1, 1.1 and 1.1 per cent respectively. Stronglye sp. and *Eimeria* oocyst were more prevalence in goat. This finding was correlated with finding of Murthy *et al.,* (2014). In goat, high incidence might be due to immunosuppression in the goat that might be due to over population, transportation and herd movement. *Trichuris* sp. and cestodes eggs were low prevalence in this study indicates that absence of risk factors size of the farm mainly overcrowding and following proper deworming schedule.

In poultry, *Eimeria* sp , *Eimeria* oocyst and Capillaria sp, Ascarids and Capillaria, Capillaria and Ascarids sp were 24.6, 1.3, 1.3 4.8, 6.8 per cent respectively. The prevalence of *Eimeria* in poultry is higher than other parasites is in correlation with report of Sireban *et al.,* (2005). *Eimeria* oocyst was more prevalent in poultry caused by improper management system and rearing the birds inadequate space can enhance transmission of oocyst and they spreading into healthy birds. Capillaria sp. in poultry causes major problem in this region due to inadequate knowledge on deworming for poultry. This finding was correlated with finding of Rayyan *et al.,* (2010).

In Rabbit also *Eimeria* is more prevalent than other parasites. In intensive system of rearing, the dung may be transmitted and fast spreading by aerosol, the hair and water spillage in cages. *Strongloides* sp found very low prevalence in this study.

It is therefore, the periodic awareness programme on deworming through peripheral centre of TANUVAS, 50 per cent of the animal population not identified any helmintic infection. For maximum awareness on deworming by veterinarian to attain healthy farming practices by adopting rotational grazing, periodic deworming and farmers should aware of commonly causing gastro intestinal parasites and other infectious diseases.

Though all the species viz, cattle, goat, poultry and rabbit showing high prevalence of Coccidiosis and *Strongyle*s infection. The prevalence of value of gastro intestinal parasites was low to moderate in all the species guarantee for treatment. The identified parasites not represent any risk factors to animal and public health.

Table.1 The prevalence of various parasitic eggs and Oocysts of livestock and Poultry

Sl.no	Species	No. faecal samples	Gastrointestinal parasites	Positive No.	Percentage
1.	Cattle & Buffalloe	308	*Eimeria* Oocyst	13	80.8
			Strongyle sp.	18	4.2
			Strongyle sp. with Oocyst	08	5.8
			Strongyle sp. *Amphistome* sp.	02	2.6
			Amphistome sp.	12	3.9
			Strongloides sp.	02	0.6
			Trichuris sp.	02	0.6
			Toxocara sp.	02	0.6
			No eggs	249	80.8
2.	Sheep and Goat	169	*Amphistome* sp.	01	0.5
			Strongyle sp.	50	29.5
			Eimeria Oocyst	09	5.3
			Strongyle sp. *Trichuris* sp.	02	1.1
			Trichuris sp.	01	0.5
			Strongyle sp. *Eimeria* Oocyst	04	2.3
			Strongyle sp. *Trichuris* sp. *Eimeria* Oocyst	02	1.1
			Strongloides sp.	02	1.1
			Cestodes	02	1.1
			No eggs	96	56.8
3.	Desi birds	73	*Eimeria* Oocyst	10	24.6
			Eimeria Oocyst and Capillaria sp.	01	1.3
			Ascarids sp. and *Capillaria* sp.	01	1.3
			Capillaria sp.	03	4.1
			Ascarids sp.	05	6.8
			No eggs	45	61.6
4	Rabbit	19	*Eimeria* Oocyst	06	31.5
			Strongloides sp.	01	6.8
			No Eggs	12	63.1

All the livestock owners were aware of the deworming for livestock and poultry. Therfore, to achieve 100 per cent deworming strategy peripheral centre of TANUVAS to create deworming strategy like FMD vaccination programme through extension activities were strengthen by transforming technology from lab to land.

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How to cite this article:

Murugan, M. and Durairajan, R. 2020. Prevalence of Gastro Intestinal Parasites in Livestock and Poultry in Southern Part of Kanchipuram District, India. *Int.J.Curr.Microbiol.App.Sci.* 9(01): 1760-1763. doi: https://doi.org/10.20546/ijcmas.2020.901.196