'SURVEY OF GASTROINTESTINAL HELMINTH PARASITES OF GRAZING GOATS FROM MANTHA 'JALNA, (MAHARASHTRA), INDIA

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Abstract :

In the present study report focus is given on the infection with roundworms, cestodes & trematodes which are infecting the gastrointestinal part of grazing goats from the mantha ground. 298 intestinal examination of goats observed & noticed the different parasitism. It brought into the noticed that helminth infection was more in rainy season as compare to the rest two seasons. Among the helminthes parasites nematodes were Haemonchus (41%), Trichuris (39%), Nematodirus (28%), Strongyloides (17%), ascaris lumbricoides(24%) and Oesophagostomum (25%). Among cestodes, Moneizia (16%), Avitellina (21%) were reported. Among trematodes, Fasciola (31%), Dicrocoelium (30%) and, Paramphistomum (21%) were most prevalent. the present report realized that gastrointestinal helminthic infections varies in different seasons and fluctuating in the parasitism with changing the environment.

Key words: helminthes,gastrointestinal,goat,Mantha

Introduction :

The grazing animals naturally suffering from different parasites and pathogens in overall world and specially gastrointestinal helminthes are putting pressure to control and ultimately economical losses are taking place in agriculture field. Parasitic manifestation is one of the major problem in the management and a growing concerned for the conservation of endanger animal species. As we know that domestic goat (*capara hircus*) strengthening the national economy from poor to higher and fulfilling the demands of food as with exceeding the population. The overall economical development of rural and hilly region of mantha could noty have achieved by neglecting the development of agriculture fascilities for livestock specially domestic. In connection with this consistently invading the helminthes parasites the production of goats. As the younger goats having low resistance power hence they being the victim of various disease of helminthes and various pathogens consequently they are dying before attaining the maturity or fully growth. The majority of the intestinal worms live as endoparasites in the interior of the body of their host. Thsy often residing in the various part or appendages of host. Though certain verities such as the monogenetic trematode are tobe found upon the body surface ,in hollow organs which are readily accessible from the exterior during the grazing the oral cavity ,urinary bladder. In this study report the author has tried to find out the helminthes manifestation in goats, as goat meat is highly demanded food source is being observed overall world.

Material & Methods :

From june 2019 to june 2020 the total 298 intestine of goat were collected from the slaughter house which present in mantha. After dissecting and examined the roundworms were fixed in hot 70% alcohol and then was preserved in 70% alcohol and glycerin. Afterward roundworms was cleaned by lactophenol. While as

cestode & trematodes were washed by physiological saline and then it was fixed in Cornoy's fixative and then kept in the 70% alcohol .after that they were allowed to processe3d for permanent mounts in DPX .

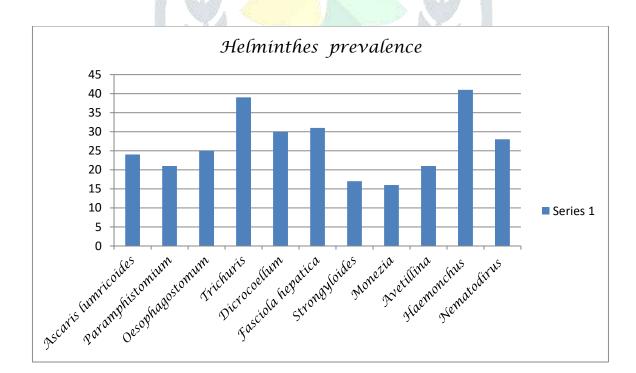
Results & Discussion :

The total 293 viscera were examined of goats in which the biodiversity of helminth is founded which is tabulated in the table no.1

Table No-1:

Helminthes name	Site location	Quantity in goats/%
Ascaris lumricoides	Large intestine	24
Paramphistomium	stomach	21
Oesophagostomum	Large intestine	25
Trichuris	Large intestine	39
Dicrocoellum	Small intestine	30
Fasciola hepatica	Stomach	31
Strongyloides	Small intestine	17
Monezia	Large intestine	16
Avetillina	Large intestine	21
Haemonchus	Small intestine	41
Nematodirus	Stomach	28

Graph-1:



24 Ascaris lumricoides which was found in the large intestine of host of goat,21 Paramphistomium located in the stomach of goat, 25 Oesophagostomum were investigated in large intestine of host, 39 Trichuriswas detected in the large intestine of goat, 30 Dicrocoellum were collected from smallm intestine of goat, 31 Fasciola hepatica was collected from the stomach of host,17 Strongyloides seen in the small intestine of the goat, 16 Monezia was observed in the large intestine of host in goat and 28 Nematodirus were collected from large intestine, 41 Haemonchus detected in the small intestine of host in goat and 28 Nematodirus were collected from the stomach of host. An epidemiology and pathogenicity forms the core edifice of prevention and control of parasitic disease can be constructed. The above tabulated data and graphical form shows the prevalence of helminthes parasites in the different parts of host of goat which highly affecting the production of meats and enforcing unrecoverable economic losses in mantha region.

Conclusion :

The present study report is enough to understand the epidemiology of helminthes parasites in capra hircus (goat) of Mantha ground ,this information can be helpful for planning,control,prevention,awareness and prophylaxis of helminthes parasites in the present area.

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References :

1.Aguilar- Caballero, A. J., Torres- Acosta, J. F., Vera –b Ayala, C. E., Espana- Espana, E., 2002. Long and short term supplementary feeding and the resilience of browsing Criollo goats to gastrointestinal nematodes. In Proceedings of the International Conference "Responding to the increasing global demand for animal products", British Society of Animal Science, Merida, Mexico, Nov.2002, pp.213- 214.

2.Barret J. And Beis I.1973. Nicotinamide adenosine dinucleotide levels in *A.lumbricoids,Hymenolepsis diminuta and F. hepatica*. International J.Parasitol.3(2):271-273.

3.Barger, I.A., 1999. The role of epidemiological knowledge and grazing management for helminth control in small ruminants. Int. j. parasitol. 29, 41- 47.

4.Brown, M.D., Poppi., D.P., Sykes, A.R., 1991. The effect of post ruminant infusion of protein or energy on the pathophysiology of *Trichostrongylus columbriformis* infection and body composition in lambs. Aust. J. Agric. 42, 253-167.

5.Chartier, C., Hoste, H., 1994. Anthelmintic treatments against digestive- tract nematodes in grazing dairy goats with high or low levels of milk production. Vet. Res. 25, 450-457

6.Fairbairn, D.1960. Physiological aspects of egg hatching and larval exsheatment in nematodes. Host influence on parasites physiology.Ed. I.A. Stauber.(Rutgers.University.Press.New Brunswick).

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7.Hoste, H., Huby,F., Mallet, S., 1997. Strongyloses gastrointestinales des ruminants : consequences physiopathologiques et mechanisms pathogeniques. Le point Veterinaire. 28, 53-59.

8.Torres- Acosta, J.F.J., 1999. Supplementary feeding and the control of gastro intestinal nematodes of goats in Yucatan Mexico PhD Thesis. Royal Veterinary College, University of London.

9.Waller,P.J., 1999. International approaches to the concept of integrated control of nematode parasites of livestock. Int. J. Parsitol. 29, 155-164.

