Study of Parasitic Diseases - Goat's Digestive Zoonoses In Gorontalo District

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Study of Parasitic Diseases - Goat's Digestive Zoonoses In Gorontalo District

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INTRODUCTION

The purpose of this study is to study the parasitic-zoonotic diseases of the gastrointestinal tract in goats in Gorontalo District. The results of this study in the long term are expected to contribute to the Gorontalo regional government in the development of the livestock sector, especially in terms of handling diseases in goats and anticipating the presence of goats.

MATERIALS AND METHODS

The samples examined were 100 (slovin 90%). Goat feces were examined using native, sedimentation and flotation methods. The object was then observed using a binocular microscope with 400 times magnification (Levine, 1995).

RESULT AND DISCUSSION

Gorontalo Regency has an area of 5,746.38 km2, which administratively is divided into Asparaga District (1), Tolangohula (2), Boliyohuto (3), Mootilango (4), Bilato (5), Pulubala (6), Tibawa (7) , Tabongo (2), Batudaa (9), Bongomeme (10), Dungalio (11), Batudaa Pantai (12), Biluhu (13), Telaga (14), Telaga Biru (15), Telaga Jaya (16), Tilango (17), Limboto (18) and Limboto Barat (19) (BPS, 2014).

Figure 1. Map of sub-districts in Gorontalo District, Gorontalo Province.

The population of goats in Gorontalo Regency was 76,924, spread over 18 sub-districts. Cattle breeding carried out by the community is carried out in an extensive, intensive and semi-intensive system.

From the results of the examination found various types of worm eggs that belong to the class of Trematoda, Nematoda and Cestoda worms, while the digestive protozoa were found to consist of oocysts from Coccidia Sp. The results of the prevalence of parasitic diseases of the entire goat digestive tract are presented in Table 1.

Table 1. The prevalence of parasitic diseases Goat Digestive Tracts in Gorontalo District are based on parasites.

No	Parasite	Sample	Positive	Prevalence
1	Nematode	100	52	52%
2	Trematode		37	37%
3	Cestode		2	2%
4	Protozoa		35	35%

The results of the study of parasitic diseases of the gastrointestinal tract in goats are not different from the results of studies of parasitic diseases in cattle digestion carried out by Sayuti and Nugroho (2015; 2016), namely found also Trematoda, Nematode, and Cestoda class worms. This can happen because goats and cows are both ruminants and can be infected through foods that contain infective forms of parasites.

Some parasitic agents are parasitic agents that can potentially infect humans as stated by the World Healt Organization (WHO). From the results of the study, Schistosoma sp., Fasciola sp., Coccidia sp. (Toxoplasma) and Taenia sp. (Cestoda) Worms were potential parasitic-zoonotic diseases (Nyindo and Lukambagire, 2015); Leger et al., (2016); Gunawan et al., (2014); Sissay et al., (2007).

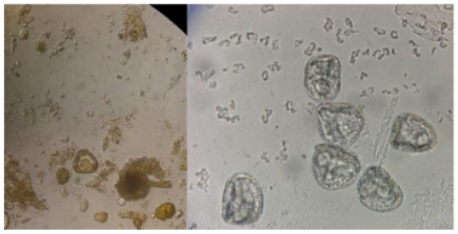

Figure 2. Cestoda worm eggs in the digestive tract of goats in Gorontalo district. 40x.

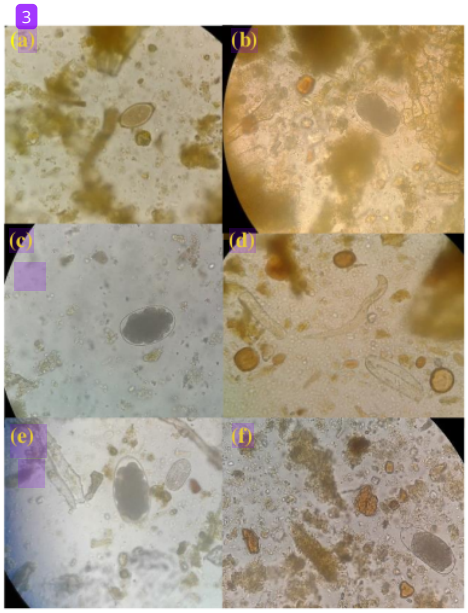

Figure 3. Goat's digestive tract Nematodes in Gorontalo District. *Trichuris sp.*, (**a**), *Ostertagia sp.*, (**b**), *Haemonchus Sp.*, (**c**) *Toxocara sp.*, (d), *Strongyloides Sp.*, (e), *Strongylus sp.*, (g). 40x.

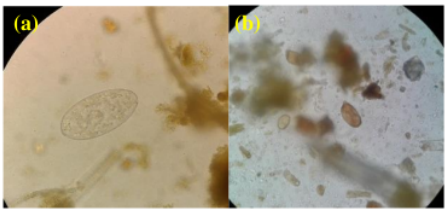

Figure 4. Trematode worm of the goat's digestive tract in Gorontalo Regency. Fasciola worm eggs Sp., (A), *Schistosoma sp.*, eggs (B). 40x.

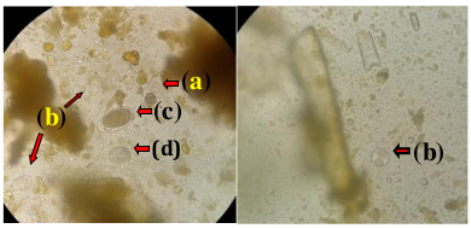

Figure 5. Coccidia oocysts that have been ripe have 4 sporocysts (a), Coccidia Okista still sporulating (b), Trematoda worm eggs (c), Nematode / Strongyloides sp. Worm eggs, which appear to contain larvae (d). 40x.

CONCLUSION

Schistosoma sp., Fasciola sp., Coccidia sp., (Toxoplasma), *Toxocara sp.*, and *Trichuris sp.*, (Nematode) and *Taenia sp.* (Cestode) worms are parasitic-zoonotic diseases of the digestive tract of goats in Gorontalo Regency.

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REFERENCES

[1] Gunawan, Nurwidajati, Anis., Nelfida, Janita, Brian. 2014. Variasi Genetik Oncomelania Hupensis Lindoensis dengan Metode Random Amplifield Polymerase Chain Reaction (RAPD PCR) di Sulawesi tengah. Bulletin Of Health Research Journal. Vol 42. No. 2.

[2] Leger, Elsa., Amalu Garba, Amina, Hamidou, Bonme L. Webster, Tom Pennance, David Rollinson dan Joane P. Webster. 2016. Intogressed Animal Schistosomes; Schistosoma curassoni and S. Bovis Naturally Infecting Human. *Emerging Infectious Disease Journal.* Vol. 22.

[3] Levine ND. 1995. Protozoologi Veteriner. Terjemahan Suprapto Soekardono. Gadjah Mada. University Press.

[4] Nyindo M, Lukambagire AH. 2015. Fascioliasis; an ongoing zoonotic trematode infection. *Biomed Research Internasional Journal.*

[5] Sayuti M, Tri AEN. 2015. Situasi Penyakit Parasiter Pada Sapi di Gorontalo. Laporan Penelitian Fundamental. Universitas Negeri Gorontalo.

[6] Sayuti M, Tri AEN. 2016. Situasi Penyakit Parasiter Pada Sapi di Gorontalo. Laporan Penelitian Fundamental. Universitas Negeri Gorontalo.

[7] Sissay MM, Arvid U, Peter JW. 2007. *Tropical Animal Health and Protection Journal.* Vol. 39.

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