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Therapeutic Management of Theileriosis in Goat: A Case Report

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Abstract

A rare case of Caprine Theileriosis is described and discussed in this report. A 5years old male, non-descript goat and weighing 70kg was brought to the Veterinary Clinical Complex, College of Veterinary Science & A.H., Mhow with the history of fever, anorexia, dullness and depression. On the basis of clinical observation and blood

smear examination disease was confirmed as Theileriosis. The Buck was successfully treated with Inj Diminazene Aceturate @ 0.8 mg/ 100 kg b.w. (im), Inj Paracetamol @ 10 mg/kg b.w. (im) and Inj Normal Saline (0.9%) 200ml (iv).

Keywords: Theileriosis, Buck, Diminazene Aceturate

1. Introduction

Theileriasis is a group of tickborne diseases caused by *Theileria* spp. Theileriosis is an important disease of goats. The epidemic period is from late March to July with April-May being the peak months. This is the period of most intensive tick attack by *Haemaphysalis* spp. It has been proved that the nymphs and adults, which develop from larvae and nymphs engorged on infected goats can transmit the pathogen (Luo and Yin, 1997) ^[4]. Theileriosis, caused by *Theileria lestoquardi* (pathogenic) or *Theileria ovis* (Nonpathogenic). *Theileria lestoquardi* causes malignant theileriosis goats, a severe lymphoproliferative disease with high mortality and morbidity. Acute form of disease is more usual but subacute and chronic form also exists (Naz *et al.*, 2012) ^[5]. These are obligatory intracellular parasites of the family theileriidae that are known to infect wild and domestic ruminants in tropical and subtropical regions of the world (Banka *et al.*, 2020) ^[2]. Theileriosis is parasitic diseases of economic importance. Diagnosis of theileriosis is primarily through clinical symptoms and the microscopic examination of blood smears (Inci *et al.*, 2010) ^[3]. Agrawal *et al.*, 2016 ^[1] reported low sensitivity of blood smear examination than polymerase chain reaction.

2. Case history and observation

A buck aging 5years and weighing 70kg was presented in Veterinary Clinical Complex College of Veterinary Science & A.H., Mhow with the history of fever, anorexia, enlargement of regional lymph nodes, dullness and depression.

Detailed examination revealed rough coat, emaciation, prostration, inability to get up, pyrexia on clinical examination, it was found that the body temperature was 106.1⁰F, enlargement of superficial lymph nodes, dysnoea, nasal discharge, pale mucous membranes, rough hair coat, salivation, ocular discharge was observed. The blood smear examination revealed the presence of piroplasm within the erythrocytes and thus confirming the disease theileriosis.

3. Treatment

Treatment started with Injection Diminazene Aceturate @ 0.8 mg/ 100 kg b.w. intramuscularly as single injection, injection paracetamol @ 10 mg/kg b.w. intramuscularly along with Injection Normal Saline (0.9%) 200ml slow intravenously. The Buck responded after first day of treatment. Injection Paracetamol @ 10 mg/kg b.w. intramuscularly was continued for next two days along with injection normal saline.

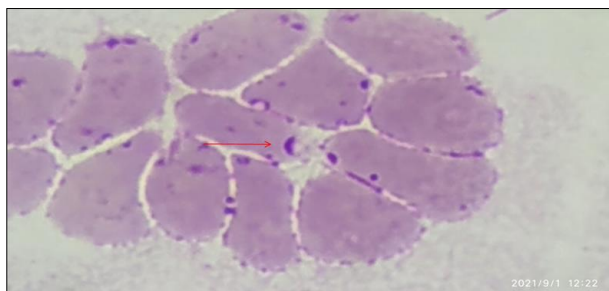


Fig: 1 Thin arrow piroplasm of *Theileria* spp. in Giemsa stained thin blood smear of goat

4. Discussion

The disease being a major threat to livestock industry and has become a constraint in goat production by causing economic losses in terms of high morbidity and mortality. In India *T. lestoquardi* and *T. ovis* are the most prevalent species reported in small ruminants. Poor general condition, rough coat, dullness, anorexia, pale mucus membranes and tachycardia, enlarged lymph nodes, presence of ticks over body and high rise of body temperature indicate the presence of protozoa infection (Sharma *et al.*, 2017) [6]. Presence of piroplasm within the erythrocyte confirmed the case of caprine theileriosis (Soulsby *et al.*, 1986). Clinical expression in the present case were supportive for laboratory diagnosis. Tachycardia and dyspnea were may be as a result of anemia. Examination of blood smear is the most common method of diagnosing theileriosis.

5. References

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