Theileriosis in calves and its Successful Therapeutic Management

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Abstract: Theileria is one of the most important blood protozoan parasite and a major constraint to the dairy industry and causes devastating losses to the livestock worldwide. Theileriosis is caused by *Theileria annulata* and is transmitted through *Hyalomma anatolicum*. The present report demonstrates the successful therapeutic management of theileriosis in calves. Clinical examination of affected animals revealed high fever (104°F), dullness and anorexia. The blood smears examination after staining revealed the presence of *Theileria* organisms. Buparvaquone along with supportive therapy could cure all the animals.

Keywords: Theileria, calves, Buparvaquone, Blood protozoan

INTRODUCTION

Theileriosis is caused by *T. annulata* and is transmitted through Ixodid tick of genus *Hyalomma anatolicum*[1]. It is the most important blood protozoan parasite and a major constraint to the dairy industry and causes devastating losses to the livestock. In India the annual loss reported due to tropical theileriosis is approximately US$ 800 million [2]. The hot and humid climate is highly favourable for the development and survival of ticks. The major clinical manifestation of theileriosis are pyrexia, lymphadenopathy, anemia, anorexia, cachexia, respiratory distress, petechiae on conjunctiva, unilateral and bilateral exophthalma[3,4,5]. The present case report demonstrates the therapeutic management theileriosis cases in calves.

Case History and Observation

Three calves aged below two month were presented to the Veterinary Polyclinic, with a history of dullness, anorexia, and high body temperature (104°F) since 3-4 days. The cases were suspected for haemoproteozoon diseases and the blood samples were collected with EDTA from the calves. The blood samples were referred to Veterinary Parasitology Laboratory at Regional Disease Diagnostic Laboratory, for confirmatory diagnosis. The blood smears were stained with Giemsa’s and examined for the presence of haemoproteozoon parasites.

Treatment and Discussion

Out of three animal blood smears examined two calves harboured *Theileria annulata* organisms by Giemsa’s staining technique (Fig. 1). Similarly [6] reported theileriosis in 7 day old bovine calf. According to [7,8] the young calves of below one month of age are highly susceptible for theileriosis, hence the calves should be given proper immuno- prophylactic measures immediately after birth under field conditions. [9,10] opined that, the young calves are highly susceptible for theileriosis.

![Fig-1: Theileria annulata piroplasms](image)

In the present study, the affected animals were treated with Buparvaquone (Butalex at the dose rate of dose 2.5 mg/kg body weight) intramuscularly and advised to repeat after seven days. In addition, meloxicam (Melonex at dose rate of dose 0.5 mg/kg body weight) intramuscularly for three days. The calves were recovered and attains normalcy after one week of treatment. This is in accordance with [6] they used buparvoquone along with supportive therapy for the successful treatment.

One blood smears did not revealed any haemoproteozoon parasites, but the animals were responded for the above said treatment.
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