

Theileriosis in calves and its successful treatment

Ganga Naik*, Ananda K. J. and Kavitha Rani B.

Department of Anatomy and Histology,
Veterinary College, Karnataka Veterinary, Animal and Fisheries Sciences University,
Shimoga-577 204 (Karnataka)

* Corresponding author

Introduction

Theileriosis is caused by *Theileria annulata* and is transmitted through the bites of tick *Hyalomma anatolicum*. It has been considered as the most important blood protozoan parasite in the region with higher incidence in exotic breeds and the crossbred cattle of all age groups consistent with the general epidemiology of the diseases in tropical areas as reported by Jithendran, (1997). Clinically, the affected animals have pyrexia up-to 107^o F, enlarged superficial lymph nodes accompanied by dullness, anorexia, salivation, lacrimation and discharge from nostrils.

Though all breeds of cattle are equally susceptible to theileriosis, the purebred, exotic, their cross breeds as well as the young indigenous calves are highly susceptible to this disease (Sharma and Gautam, 1977 and Grewal, 1992). Hence the present study was taken to observe incidence of theileriosis in young crossbred calves aged below one month in and around Shimoga, a malnad region of Karnataka.

Case History and Observation

Twelve calves aged below one month were presented to the peripheral hospital, Shimoga with a history of dullness, anorexia, and high body temperature. The cases were suspected for haemoprotozoan diseases and the blood samples were collected with EDTA from the same calves.

The blood samples were referred to Department of Veterinary Parasitology, Veterinary College, Shimoga for confirmatory diagnosis. The blood smears were stained with Giemsa's and examined for the presence of haemoprotozoan parasites.

Treatment and Discussion

Out of Twelve animal blood smears examined, five calves harboured *Theileria annulata* organisms by Giemsa's staining technique. Similarly Gupta et al (2004) reported theileriosis in 7 day old bovine calf. According to Mudgal (1993) the young calves of below one month of age are highly susceptible for theileriosis,

hence the calves should be given proper immunoprophylactic measures immediately after birth under field conditions. Sharma and Nichani (1990) and Grewal (1992) opined that, the young calves are highly susceptible for theileriosis.

In the present study, the calves were treated with the buparvoquone (Zydus Animal Health Limited, Ahmedabad) at the rate of 2.5 mg/kg b. wt. injected deep intramuscular in the neck region along with Haemoferron 2 ml (Intas Pharmaceuticals Ltd, Ahmedabad) and Artizone 2 ml (Alved Pharma and Food Pvt. Ltd., Uttarkhand) injected intramuscularly. The calves were recovered and attains normalcy after one week of treatment. This is in accordance with Gupta et al. (2004) they used buparvoquone along with supportive therapy for the successful treatment.

The other seven blood smears did not revealed any haemoprotozoan parasites, but the animals were responded for the above said treatment.

References

1. Grewal, A. S. (1992): Development of theileria vaccine for control of bovine tropical theileriosis. Proceeding Annual Scientist meet of All India Coordinated Research Projects on 'Intracellular blood protista with special reference to the immunoprophylaxis and control' held on Feb. 8, 1992 at Haryana Agricultural University, Hisar, India.
2. Gupta, S. K., Anish Yadav, Raina, A. K. and Rajiv Singh (2004): Theileriosis in a seven-day old bovine calf – a case report. *Indian J. Vet. Med.* 24, 55.
3. Mudgal, V. K. (1993): Studies on cross-immunity and field trials with cell culture vaccine against bovine tropical theileriosis. M.V.Sc thesis. Haryana Agricultural University, Hisar, India.
4. Purnell, R. C. (1979): Tick borne disease of cattle – a case for pragmatism? *Vet. Rev.* 25: 56-62.
5. Sharma, R. D. and Gautam, O. P. (1977): Theileriasis in cattle. *Indian J. Parasitol.* 1: 87-91.
6. Sharma, R. D. and Nichani, A. K. (1990): A cell culture vaccine against bovine tropical theileriosis even in for young calves. Proceeding first Asian Congress of Veterinary Parasitology, held from October 6-8 1990, Bihar Veterinary College, Patna, India.
