



P-ISSN: 2349-8528

E-ISSN: 2321-4902

IJCS 2018; 6(3): 2130-2131

© 2018 IJCS

Received: 20-03-2018

Accepted: 21-04-2018

**Sakhare MP**

Assistant Professor,  
Veterinary Preventive Medicine,  
Department of Veterinary  
Medicine, College of Veterinary  
and Animal Sciences, MAFSU,  
Parbhani, Maharashtra, India

**K Saikia**

M. V. Sc Scholar, Veterinary  
Clinical Medicine, Department of  
Veterinary Medicine, College of  
Veterinary and Animal Sciences,  
MAFSU, Parbhani,  
Maharashtra, India

**GM Chigure**

Assistant Professor, Vet.  
Parasitology, Department of  
Veterinary Medicine, College of  
Veterinary and Animal Sciences,  
MAFSU, Parbhani,  
Maharashtra, India

**MFMF Siddiqui**

Assistant Professor, Veterinary  
Clinical Medicine, Department of  
Veterinary Medicine, College of  
Veterinary and Animal Sciences,  
MAFSU, Parbhani,  
Maharashtra, India

**SR Bangar**

M. V. Sc Scholar, Veterinary  
Clinical Medicine, Department of  
Veterinary Medicine, College of  
Veterinary and Animal Sciences,  
MAFSU, Parbhani,  
Maharashtra, India

**Correspondence****Sakhare MP**

Assistant Professor, Veterinary  
Preventive Medicine,  
Department of Veterinary  
Medicine, College of Veterinary  
and Animal Sciences, MAFSU,  
Parbhani, Maharashtra, India

**Atypical case of Theileriosis in a HF crossbred calf****Sakhare MP, K Saikia, GM Chigure, MFMF Siddiqui and SR Bangar****Abstract**

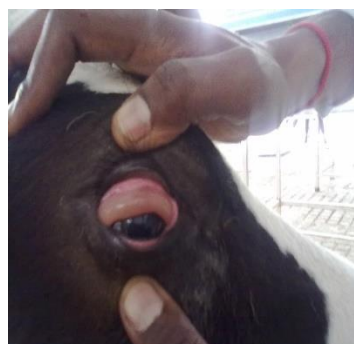
A one month old HF cross-bred calf was presented with history of fever, respiratory distress, reduced feed and water intake, loss of body condition and swelling of eyelid. Detailed clinical examination revealed high body temperature (105.4°F), increased respiration (42/min), enlargement of both prescapular lymph nodes, tachycardia (110/min.), bulging of eyelid mucous membrane, lacrimation, rough skin coat, presence of *Hyalomma* ticks on the body and moderate dehydration. The lymph node aspiration smear revealed Koch blue bodies. The haematological examination revealed decrease in hemoglobin, Packed Cell Volume and Total Erythrocytic Count. The calf was successfully treated with single dose of Inj. Buparvaquone and Inj. Oxytetracycline for next three days.

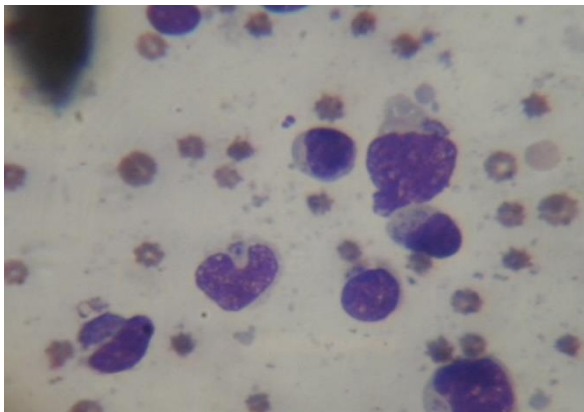
**Keywords:** HF crossbred calf, Theileriosis, Buparvaquone, swollen eyelid**Introduction**

Bovine tropical theileriosis is an important haemoprotozoan disease of exotic and crossbred dairy cattle. In India, Bovine Theileriosis due to *Theileria annulata* has been reported to be endemic causing serious constraints to the economy of dairy industry. The parasite transmitted to the bovine host through *Hyalomma anatolicum anatolicum* tick has an intra-lymphocytic schizont and intra-erythrocytic piroplasmic stages. The disease is characterized by fever and lymphoproliferative disorders associated with leucopenia and anemia. The present case reports atypical case of Theileriosis in a HF crossbred cow-Calf.

**Materials and Methods**

A one month old HF cross-bred calf of Marathwada Agriculture University, Parbhani was presented with history of fever, respiratory distress, reduced feed and water intake, loss of body condition and swelling of eyelid. The calf was previously treated with antipyretic and antibiotic, but showed no response. The detailed clinical examination revealed high body temperature (105.4°F), increased respiration (42/min), enlargement of both prescapular lymph nodes, Tachycardia (110/min.), bulging of eyelid mucous membrane (Fig.1.) noticed as characteristic of the present case, lacrimation, rough skin coat, presence of *Hyalomma* ticks on the body and moderate dehydration. Lymph node aspiration smears were prepared and stained with Giemsa stain (Soulsby, 2005) which revealed Koch blue bodies (Fig.2.). Further, Blood sample was subjected for haematological examination revealed decrease in Hemoglobin (6.8 gm%), Packed Cell Volume (18%) and Total Erythrocytic Count ( $3.2 \times 10^6/\mu\text{l}$ ). On the basis of signs and symptoms, lymph smear and haematological examination the case was diagnosed as tropical Theileriosis.

**Fig 1:** HF crossbred Calf with swollen mucous membrane of eyelid



**Fig 2:** Lymph smear showing Koch blue bodies in Lymphocytes

### Results and discussion

The calf was treated with single dose therapy of Antitheilerial compound Inj. Buparvoquone @ 2.5mg/kg BW IM and subsequently Inj. Oxytetracycline @ 10mg/kg BW IV for next three days. Supportive therapy comprised of Inj. DNS @ 1000 ml IV, Inj. Meloxicam @ 0.5mg/kg BW IM, Inj. Feritas @ 5ml IM for 4 days, consecutively. The calf showed clinical recovery on 4<sup>th</sup> day of treatment and the calf regained its appetite along with normal feeding, marked decreased swelling of eyelid and prescapular lymphnodes. Sharma *et al.* (2007) <sup>[4]</sup> observed at par symptoms in buffalo calves affected with theileriosis. Rashid *et al.* (2010) <sup>[2]</sup> observed that the level of hemoglobin, PCV, TEC and TLC was reduced in infected animals which was corroborate the present findings. Tropical theileriosis revealed low TEC, hemoglobin concentration and TLC with lymphocytosis (Sekar *et al.*, 2009) <sup>[3]</sup>. The oedematous swelling at eyelids due to *T. annulata* infection was atypical finding in the present clinical case. Treatment with Parvaquone and its derivatives buparvaquone is highly effective when applied in early stages of clinical disease but is less effective in advanced stages in which there is extensive destruction of lymphoid and haematopoietic tissues occur (Merck, 2005) <sup>[1]</sup>. It could ascertained that in the present case, early diagnosis with timely therapy with specific drug has helped to recover the calf. Through this case, it is time and again proved that mucous membrane swelling is also a characteristic symptom in theileriosis. Similarly timely diagnosis and specific treatment is the key needed for successful therapy.

### References

1. Merck. Merck Veterinary Manual. 8<sup>th</sup> edn., Merck & Co., INC. White house station, NJ.USA, 2005.
2. Rashid Farzana, Das G, Bagherwal RK. Haemato-Biochemical alterations in Cross-bred Cattle naturally infected with *Theileria annulata*. Indian Vet. J. 2010; 87(7):720-721.
3. Sekar SM, Venkataraman KS, Suresh RV, Maher Sulima, Maheshkrishna M, Prathaban S. Haematological changes in Cattle suffering from tropical Theileriosis. Indian J. Vet. Med. 2009; 29(1):55-56.
4. Sharma N, Maiti SK, Mandal SC, Mukherjee K, Roy S. Treatment of Theileriosis in Buffalo calves. Indian Vet. J. 2007; 84(6):632.
5. Soulsby EJL. Helminthes, Arthropods and Protozoa of Domesticated Animals. VII edn. ELBS and Baillere Tindall, London, 2005.