



# CEREBRAL BABESIOSIS IN A DOG- A CASE REPORT

Received - 31.12.2011

Accepted - 05.06.2012

*Babesia* species is one of the most ubiquitous and widespread haemoprotozoa in the world and has considerable economic, medical and veterinary impact worldwide. *Babesia canis* and *Babesia gibsoni* are the two protozoal organisms commonly known to infect dogs. *Babesia canis*, a large babesial species measuring 5  $\mu\text{m}$  in length is more prevalent in India. A wide range of clinical signs is reported for babesiosis, with the greatest severity in younger dogs. Lethargy is the most common symptom, followed by anorexia, pale mucous membranes, vomiting, amber to brown urine, splenomegaly, jaundice, weight loss, tachycardia and tachypnea. In severe cases, multiple organ systems such as the lungs, gastrointestinal tract, kidneys, and the nervous system may also be affected. Sometimes dogs suffer a very acute form of babesiosis and suddenly go into shock and collapse. An unusual form of cerebral babesiosis is presented here.

A male dachshund pup aged 45 days was presented to the Veterinary Teaching Hospital, Mannuthy with a history of inappetance, occasional convulsions and debility. On clinical examination the mucous membrane was found to be pale and icteric. The rectal temperature was subnormal and the animal was dehydrated. No parasitic ova could be detected on faecal sample examination. Blood smear examination revealed characteristic pyriform shaped *Babesia canis* organism in pairs in more than 50 percent of the erythrocytes. The pup was treated with inj Berenil (Diminazene aceturate) 0.25 ml intramuscularly, inj dextrose 25% solution 25 ml intravenously and inj imferon 1

ml intramuscularly. The condition of the animal improved by the third day and was cured by the 10<sup>th</sup> day.

Usually a febrile syndrome characterized by marked sudden hyperthermia, anorexia, depression and a hemolytic syndrome with anaemia and bilirubinuria are the two manifestations of the disease. Atypical forms; locomotor, cerebral, ocular, gastrointestinal and vascular forms due to haemorrhage and disseminated intravascular coagulation are also rarely seen (Gilles, 2006). Cerebral babesiosis refers to the occurrence of nervous symptoms associated with parasitized erythrocytes. However only a few of the affected animals develop cerebral form of the disease (Isabel *et al.*, 2008).

## Summary

Canine babesiosis is one of the most important tick borne diseases of dogs worldwide. Only a few of the affected animals usually develop cerebral form of the disease. A case report of cerebral babesiosis is presented here and the dog was successfully treated with Diminazene aceturate.

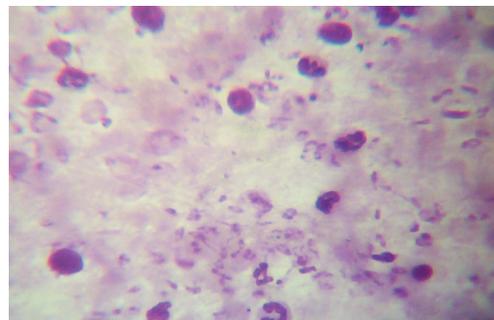


Fig: Erythrocytes parasitized with Babesia

## References

Gilles, B. 2006. Canine babesiosis in France. *Vet.Parasitol* **138** : 118-125.

Isabel V, M., Karine S, B., Ingrid G. and Sylvie D. 2008. An unusual form of canine babesiosis. *Can. Vet. J.* **49**: 283-286.

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