

CANINE EHRLICHIOSIS IN A DACHSHUND DOG AND ITS THERAPEUTIC MANAGEMENT

Anil Kumar¹, Pallav Shekhar², G.D. Singh¹, Ramesh Tiwary and Ajit Kumar

¹Assistant Professor, Department of TVCC, ²Assistant Professor, Department of Veterinary Medicine, Bihar Veterinary College, Bihar Veterinary University, Patna - 800 014 (Bihar).

[Received: 26.7.2018; Accepted: 08.4.2019]

Canine ehrlichiosis is caused by *Ehrlichia canis* and transmitted by *Rhipicephalus sanguineus*. A nine month old male Dachshund dog weighing 8.5 Kg was presented to the TVCC, Bihar Veterinary College, Patna with complaint of pyrexia, anorexia, melena and tick infestation. Blood smear examination revealed *Ehrlichia canis* and hemato-biochemical parameters revealed low level of platelets and increased level of ALT. Therapeutic management included Oxytetracycline, Imidocarb dipropionate and supportive therapy. Follow up therapy by doxycycline orally daily for 3 weeks along with liver tonic. One week after treatment dog revealed marked clinical improvement.

Keywords: Doxycycline, *Ehrlichia canis*, Imidocarb dipropionate, *Rhipicephalus sanguineus*.

Canine ehrlichiosis is a tick-borne hemoprotozoan disease caused by *Ehrlichia canis* that invades and multiplies within leukocytes and platelets in the peripheral blood (Mavromatis *et al.*, 2006). It is mainly transmitted by brown dog tick, *Rhipicephalus sanguineus*. The blood protozoan parasite *Ehrlichia canis* is normal inhabitant of monocytes, neutrophils and eosinophils (Xaxa and Kumar, 2018). The clinical signs of the disease are many, but most often depression, anorexia, pyrexia and bleeding tendencies are observed (Mylonakis and Theodorou, 2017). Three stages of the disease (acute, subclinical, and chronic) are recognized and the acute stage is characterized by nonspecific signs including fever, lethargy, anorexia, and weight loss (Sainz *et al.*, 2000). Thrombocytopenia is the most common hematological finding of the Canine ehrlichiosis (Geromichalou and Faixova, 2017). The present report deals with successful therapeutic management of canine ehrlichiosis in a male Dachshund dog.

A 9-month old male Dachshund dog weighing about 8.5Kg was presented to the TVCC, Bihar Veterinary College, Patna with complaint of pyrexia, anorexia, melena and tick infestation. The clinical examination revealed rise in body temperature (104.8⁰F), congested mucus membrane, tachycardia (98bpm), weakness, swollen pre-femoral lymph nodes and ticks on the body (Figure.1). The ticks were collected for its identification. Owner informed that the dog was dewormed

and vaccinated properly before sickness. Tentatively, based on clinical signs suspected for hemoprotozoan infestation. For confirmation of the disease blood smear was made to direct microscopic examination by giemsa stain and 2 ml of blood in EDTA vial and 3 ml of blood for serum collection was also taken for the estimation of haemato-biochemical parameters (Hb, PCV, TEC, WBC, Platelets count and SGPT). The blood smear examination revealed *E. canis* infection (Figure.2) and the haemato-biochemical parameters revealed Hb, 14.2gm %; PCV, 43%; TEC, 4.8x 10⁶/cumm; WBC, 9.45x10³/cumm; platelets count, 0.87 lacs /cumm and SGPT, 91.58 IU/L. On the basis of clinical signs, blood smear examination and laboratory investigations, it was diagnosed to be a case of canine ehrlichiosis.

On the day of presentation, the treatment was started with Oxytetracycline @ 10 mg/Kg body wt. I/V along with normal saline, Meloxicam @ 0.2mg/ Kg body wt. I/M, Injection Tranexamic acid @ 10 mg/Kg body wt. I/V to control bleeding from GI tract, Multivitamins, CB₁₂ I/V as supportive therapy. On 2nd day with continuation of same treatment, a single injection of Imidocarb dipropionate @ 6.6mg/Kg body wt. S/C was given and the treatment was continued for 5 days until recovery of pyrexia and melena. Thereafter, at the time of discharge doxycycline was advised @ 10mg/kg body wt. orally daily for 3 weeks along with liver tonic. One week after treatment there was marked clinical improvement and

improvement in appetite and increase in the platelets count. The dog owner was advised to control the tick infestation in dog as well as in his house by anti tick spray.

The disease canine ehrlichiosis is associated with heavy infestations of *Rhipicephalus sanguineus* (the brown dog tick), which is the primary vector of *E. canis* as also reported by McQuiston *et al.* (2015). A diverse clinical signs of the disease observed, depending on the stage of the



Fig. 1 Body showing heavy ticks infestations

disease. Generally, the most frequent nonspecific clinical signs are fever, weight loss, lethargy, and anorexia and the most important typical changes in haematological parameters are severe thrombocytopenia, mild to marked non regenerative anaemia. The biochemical tests in canine ehrlichiosis revealed hypoproteinaemia along with hypoalbuminaemia and hyperglobulinaemia and increased activities of ALT, AST and alkaline phosphatase.

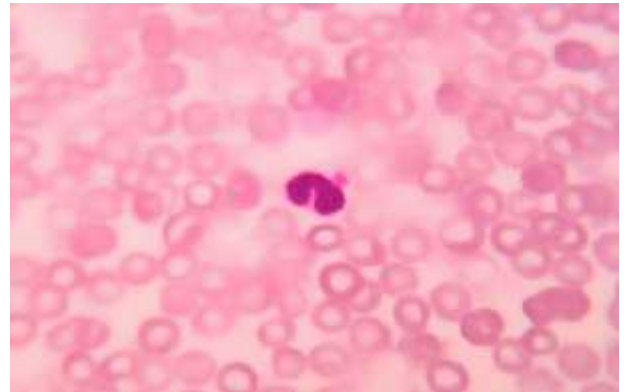


Fig. 2 *Ehrlichia canis* in monocytes

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