

# PREGNANCY ECLAMPSIA IN A BITCH AND ITS THERAPEUTIC MANAGEMENT

V. Chandrashekara Murthy<sup>1</sup>, S. Kantharaj<sup>2</sup> and T.R. Lakshminanth<sup>2</sup>

<sup>1</sup>Associate Professor, <sup>2</sup>Ph.D. Scholars, Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Hebbal, Bangalore-560 024.

[Received: 07.5.2015; Accepted: 09.11.2015]

A five year old female Beagle dog was presented with clinical signs of sudden recumbency, panting, restlessness, muscle tremors especially of the hind legs and hyperthermia. Upon further investigation, it was noted that the dog had whelped one week back with six puppies and nursing. Clinical examination revealed elevated body temperature, open mouth breathing and muscle rigidity. Laboratory investigation revealed reduced serum calcium levels (5.2 mg/dl). The dog was infused with calcium gluconate and supportive and it had an uneventful recovery.

**Key words:** Eclampsia, dog, calcium

Eclampsia is an acute life threatening disease caused by low serum calcium levels in dogs and rarely in cats. They are correctly called as puerperal tetany which is a dangerous condition caused by extremely low levels of calcium in blood (Rowland, 1972). The disease most commonly occurs in bitches 1-3 weeks postpartum and is most frequently encountered in small, hyper excitable breeds of dogs and occasionally in feline (Edney, 1969). Hypocalcemia in dogs is seen with blood calcium levels below 6.5 mg/dl. (Dixit *et al.*, 2014)

The causes of pregnancy eclampsia are multi factorial including poor nutrition, low blood levels of albumin, excessive milk production and diseases of parathyroid gland. Imbalance between the rates of inflow and outflow of extracellular fluid calcium levels because of increased loss in milk appears to be an important factor in pathogenesis of puerperal tetany in dogs (Pathan *et al.*, 2011). Eclampsia develops primarily in small breeds with large litter size (Drobatz and Casey, 2000). However, it may not be necessarily associated with large litter size (Pathan, *et al.*, 2011).

## Case history and observations

A five year old female Beagle dog weighing 16 Kg was presented to the Department of Veterinary Gynaecology and

Obstetrics with the history of recent whelping, restlessness, nervousness, stiff gait and rigid limbs. On clinical examination, the dog had muscle tremors, eye twitching, panting and incoordination with high temperature of 106.2°F.

Laboratory examination of the serum sample obtained from the dog revealed hypocalcemia (5.2 mg/dl). Based on the clinical examination and laboratory findings, the case was diagnosed as postpartum eclampsia.

## Treatment

The dog was applied ice packs all over the body to reduce the body temperature. Slow and careful intravenous infusion of 10 % Calcium gluconate at the rate of 15 mg/kg BW with 10 % Dextrose to overcome depleted levels of blood glucose was carried out over a period of 30 minutes. To overcome spasms, Diazepam at the rate of 1 mg/kg BW was administered intravenously to effectively control seizures. The dog after the treatment had an uneventful recovery. Further, the owner was advised to provide high quality meat based balanced food and oral calcium, phosphorus and Vitamin D supplementation for further maintenance of blood calcium levels. The owner was also advised to allow the puppies for partial suckling and supplement milk replacers for the newborn puppies.

## References

- Campbell, A. and Chapman, M. (2008). Normal values for cats and dogs. In: Handbook of poisoning in dogs and cats. Pp. 267.
- Dixit, A.A., Maiti, S.K. and Rao, M.L.V. (2014). Clinical management of pregnancy eclampsia in a bitch., *Intas Poli.*, **15** (II): 538-539.
- Drobatz, K.J. and Casey, K.K. (2000). Eclampsia in dogs: 31 cases (1995-1998). *J. Amer. Vet. Med. Assoc.*, **217**: 216-19.
- Edney, A.T.B. (1969). Lactation tetany in the cat., *J. Small Anim. Practice.*, **10**: 231.
- Pathan, M.M., Siddiquee, G.M., Latif, A., Das, H., Khan, J.E.Z. and Shukla, M.K. (2011). Eclampsia in the dog: An Overview., *Vet. Wrld.*, **4**(1): 45-47.
- Rowland, G.N. (1972). Microradiographic evaluation of bone from cows with experimental hypovitaminosis D, diet induced hypo calcemia and naturally occurring parturient paresis. *Tissue Res.*, **9**: 179.

## **LIFE MEMBERSHIP**

Membership of the Society is open to Veterinary / Medical Graduates who are actively engaged in the field of Canine Practice. For the membership, please write to **Prof. (Dr.) A.K. Srivastava**, Secretary General or **Dr. Shrish Chandra**, Treasurer, Indian Society for Advancement of Canine Practice, 21/5, Sector-21, Indira Nagar, Lucknow – 226 016 (U.P.) India.

**You may download the Form from our website: [www.isacp.in](http://www.isacp.in)**

The Life Membership Fee is Rs.1000.00 / \$ 25/ £ 18.