



ISSN: 2456-2912

VET 2023; 8(5): 284-285

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www.veterinarypaper.com

Received: 23-07-2023

Accepted: 30-08-2023

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Clinical management of eclampsia in a cocker spaniel dog

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Abstract

One and half year old Cocker Spaniel bitch was presented to the Emergency and Critical Care Unit, Madras Veterinary College, Chennai with the history of whelped three weeks back and had muscle tremor and incoordination during walking since three hours. On the clinical examination heart rate (tachycardia) and body temperature (hyperthermia) was elevated from the normal physiological range. Based on the history and clinical signs the condition was diagnosed as eclampsia. The bitch was administered with 10% Calcium gluconate and 5% dextrose intravenously. The dog condition was improved within half an hour post administration of intravenous calcium gluconate followed by dextrose injection.

Keywords: Carcass characteristics, weaner pigs, meat quality, palm kernel cake

Introduction

Eclampsia is an acute life-threatening condition in dogs and cats caused by low calcium levels in the blood; Primary affects the smaller breeds of dogs with large litter size ^[1]. The causes for low blood calcium levels are diet rich in or low level of calcium and phosphorus, low blood level of albumin, excessive milk production or loss of calcium through milk and disease of parathyroid gland ^[2]. Initially symptoms start with nervousness and restlessness followed by stiffness, wobbling gait (Resnik, 1972) ^[3], convulsion, muscle tremor, elevated body temperature, heart rate (Ettinger, 1983) ^[4] and respiratory rare eventually death or irreversible brain damage, if left untreated in this stage. Diagnosis mainly based on proper history, clinical signs, response to treatment (Kutzler, 2018) ^[5] and confirmation by laboratory investigation of blood calcium level ^[2].

Case history and clinical observation

One and half year old Cocker Spaniel intact female dog was presented to the Emergency and Critical Care Unit, Madras Veterinary College, Chennai with the history of dog was whelped three weeks back and had muscle tremor and incoordination in walking since three hours. Animal whelped three weeks back. On Clinical examination temperature and heart rate (Hyperthermia) elevated (Tachycardia) from the base line, muscle tremor and in coordination was notice in the hind limb and all other vital parameters are within the normal limits.

Treatment and Discussion

The dog was administered with 7.5 ml of 10% Calcium gluconate (1 ml/kg body weight) and 80 ml of 5% dextrose (10 ml/kg). Then the animal was kept in the observation until the clinical signs resolved, the clinical signs was drastically reduced within half an hour post administration of calcium therapy.

Eclampsia is an acute life threading condition of small or toy breed dogs caused by large litter size ^[1]. Dogs affected with this condition havethe serum calcium level of less than 7 mg/dl ^[6]. The condition initially start with restlessness, nervousness followed by tremor, convulsion, stiffness of the limbs, wobbling gait, tachypnea, tachycardia and elevated heart rate ^[4]. Treatment should initiate with 10% Calcium gluconate at the rate of 0.5-1.5 ml/kg over 20-30 minutes to avoid ventricular fibrillation and cardiac arrest (Kutzler, 2018) ^[5] followed by Dietary supplementation of calcium and vitamin D to preventing relapse of the condition.

Weaning and milk replacer indicated to the pups as soon as possible [2]. The Blood glucose levels are decreased as a result of increased muscular activity [7]. Hence 10% dextrose should be administered to prevent seizures related to hypoglycaemia. In case of seizures benzodiazepines or barbiturates can be used to prevent the seizures.

Conclusion

Treatment should be initiated based on the history and Clinical signs to decrease the mortality and should not delay for the laboratory findings, it will results in worsening of the condition and poor prognosis. Furthermore it's concluded that weaning and dietary supplementation should be advocated to prevent recurrence.

Acknowledgment

The author thanks the Director of Clinics, Madras Veterinary College, TANUVAS, Chennai for the facilities provided.

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