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### **Deltamethrin Toxicity in a Labrador Dog: A Case Report**

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Deltamethrin is a Type-II synthetic pyrethroid widely used in household, agricultural insects and pest management programmes and in preventing the spread of diseases carried by tick-infested prairie dogs, rodents and other burrowing animals (Poonam *et al.*, 2013). Deltamethrin has very broad spectrum control and consider as a most powerful pesticide and has less toxicity among synthetic pyrethroids in human and mammals (Rehman *et al.*, 2014) and its toxicity has not been reported in India. This case report describes acute deltamethrin toxicity in a dog.

#### **Case History and Clinical Observations**

Three year old Labrador female having one and half month pregnancy weighing 30 kg was presented in emergency in Department of Veterinary Surgery and Radiology, College of Veterinary Sci. & A.H., Anand with complaint of sudden vomition and frothy salivation. At the time of presentation dog appeared dull and depressed. Detail history revealed topical use of deltamethrin over the body for control of ticks before one hour. On clinical examination physiological parameters were within normal range.

#### **Treatment and Discussion**

The dog was treated intravenously with Inj. Normal Saline 500 ml along with Atropine Sulphate @ 0.04 mg/kg, Frusemide @ 2 mg/kg and Ceftriaxone and Tazobactam @ 15 mg/kg. The dog showed improvement during close monitoring over next 3 hrs and made uneventful recovered within next 12 hrs. There is no specific antidote of deltamethrin. Hence the diagnosis and treatment is based on history of exposure and development of clinical symptoms. Pyrethroids are fat soluble compounds rapidly metabolized and excreted after oral and dermal absorption in most mammals (Klainbart *et al.*, 2014). Pyrethroids have no direct action on the liver and kidneys but fluid may be needed to help to protect kidneys from myoglobin breakdown products in animals (Anadon *et al.*, 2009). In the present case dog was treated with medicinal management along with other supportive care including intravenous fluid, antibiotic and diuretics to fasten recovery and saving life of the animal. Parmar *et al.* (2015) reported toxicity of cypermethrin in a Spitz dog with similar symptoms including lateral recumbency with severe seizures which was treated successfully with anticonvulsion agent and steroid with other supportive care. In the present case the bitch was pregnant and had no seizures or lateral recumbency, so steroid was avoided. Hence deltamethrin toxicity in dogs needs to be further investigated to avoid such issues in future due to its indiscriminate use by the pet

owners and farmers.

**Conflict of Interest:** All authors declare no conflict of interest.

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