



ORIGINAL ARTICLE



Efficacy of Fipronil in the treatment of canine flea allergy dermatitis

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ABSTRACT:

The study was conducted on four dogs suspected of flea allergy dermatitis. History and Clinical signs were recorded. Skin scrapings were collected and examined for ticks and mites, which were negative. Hair coat brushings were examined and revealed fleas. Fipronil spray was used against these dogs affected with flea allergy dermatitis.

Key words: Fleas, dermatitis, fipronil, dogs.

INTRODUCTION

Flea allergy dermatitis (FAD) is the most common veterinary dermatologic condition in the world. It begins with the bite of a flea characterized by papules, crusts, salivary stains, excoriations and erythema in a wedge shaped pattern over the dorso lumbar region, caudal thighs, proximal tail, ventral abdomen and around the umbilicus, with chronic itching the areas become alopecic, lichenified and hyper pigmented and dog develops an odour related to secondary infection with staphylococcus intermedius and Malassezia pachydermatitis (Candace A.Sousa, 2005). Flea bite allergy is a mixed hypersensitivity reaction (type 1 and IV) to antigenic components of flea saliva. Although fleas are usually present during whole year, the disease usually starts during summer and gradually develops into perennial problem (Ton W illemse, 1991). Chronic cases show permanent backline scarring, thickening and pigmentation of skin due to seasonal flea allergy (

Baker and Thomset ,1990).The present study was undertaken to evaluate the efficacy of Fipronil against flea allergy dermatitis.

MATERIALS AND METHODS

Four dogs of different breeds presented to campus veterinary hospital, CVSc, Rajendranagar in the month of April and May with the history of severe itching, redness ,loss of hair especially at dorso lumbar region and self biting trauma. Skin scrapings were collected and examined microscopically for the presence of ticks/mites and blood samples were collected and examined as per Schalm et al.(1975). The affected dogs were treated with 0.25% w/v fipronil (Effipro spray, Virbac,S.A.) at monthly interval, along with oral prednisalone @1mg/kg b. wt for 5 days followed by 0.5 mg/kg every alternate day for other 5 days as a tapering dose.

RESULTS AND DISCUSSION:

Clinical examination of the dogs revealed erythema with excoriations, crusts, lichenification, hyper pigmentation at dorso lumbar region , thigh region. The present clinical findings are in agreement with (Ahuja , 2005 and Baker and Thomset ,1990). Pruritic dermatitis with crust formation , scales on the lumbo sacral area and hind limbs, popular lesions on the abdomen, scratching resulting in alopecia, secondary seborrhea were reported in dogs with flea allergy (Ton W illemse,1991).

Microscopic examination of the skin scrapings were negative for ticks ,mites and fungal arthrospores. Hair coat brushings revealed presence of flea dirt. Hematological parameters like haemoglobin, packed cell volume, total erythrocyte count, total leucocyte count and differential leucocyte count were normal except for increase in total eosinophilic count (1025/ μ l).Increase in eosinophilic count in the present study is in agreement with Benjamin(1978).

The therapeutic response of each case was assessed based on clinical improvement of the dermatological lesion and parasitological cure. There was marked improvement in pruritus, erythema, crusts within 7 days post treatment with reduction in flea count ,although recovery from alopecia took place in 5 weeks. Fipronil is a topical adult flea killer that is found as both spot treatment and spray. It is a phenyl pyrazole and acts by blocking passage of chloride ions through gamma-amino butyric acid (GABA) regulated chloride ion channels. Shampoos act to mechanically remove the fleas ,but because they are rinsed off, they have minimal residual action. This problem with residual flea control can be overcome by using a final rinse (dip) that contain an insecticidal product. Many flea sprays are alcohol based and quickly kill adult fleas.(Candace A.Sousa,2005).Administration of Prednisalone as a tapering dose to relieve pruritus was suggested by (Ton Willemse, 1991 and Ahuja 2005)).Diagnosis is supported by demonstration of fleas on animal through excess grooming and scratching for removal of fleas and flea dirt.It is essential that very fine tooth comb (15 teeth to centimeter) dust /flea comb is used together with a systematic approach to grooming to maximize chance of demonstrating fleas/flea faeces / flea dirt.(Fischer 1998) which is in agreement with the present finding. Effipro spot on formulation, @0.67 ml for a dog weighing 2-10 kgs and1.34 ml for dog weighing 10.1-20kg was very effective in treating flea infestation in dogs with an efficacy of 99.7% .It provided long lasting residual protection against flea infestation (Bonneau et al ,2010).The monthly topical

application of 10% fipronil solution is effective in reducing the prevalence and severity of signs of flea allergy dermatitis in dogs (Medleau et al,2003).Application of insecticides, flea collars ,oral dosing with Lufenuron, parenteral predinisolone @1.1 mg/kg b.wt for 5 days followed every alternate day for 5 days for therapeutics of flea allergy dermatitis (Ahuja et al 2005).

CONCLUSIONS:

Fipronil can be recommended as a drug of choice against flea allergy dermatitis in canines because of its efficacy and easy administration.

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