

CANINE GENERALISED DEMODICOSIS

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ABSTRACT

Two dogs aged between 6 months and 1 year living in different areas of Hyderabad, were presented to VCC (Veterinary Clinical Complex), Rajendranagar with a history of dermatitis associated with pruritis. Clinical examination revealed the presence of lesions around eyes in one dog and lesions all over the body in another dog. Finally, the cases were identified as demodicosis based the classical signs and on the diagnostic facilities available at VCC and two dogs were treated with ivermectin and spot on preparations along with other medication

KEYWORDS: LABRADOR DOGS, DERMATITIS WITH PRURITIS, VCC HYDERABAD

INTRODUCTION

Demodex mites are part of the normal fauna of the dog, and these mites are present in the hair follicle of healthy dogs and immunological defect is responsible for the exaggerated replication of mites [1]. Demodicosis occurs when mites colonize the hair follicles and sebaceous glands. Generalized demodicosis is more common in young dogs and dermatological changes include erythema, alopecia on face and distal limbs, pustules, crusts and often a secondary pyoderma further complicates the disease [2]. More severe cases develop deep folliculitis and furunculosis with severe hemorrhagic exudation and thick crusting [4]. Injectable formulation of ivermectin used in large animals have been used to oral treatment for canine generalized demodicosis with good success rates [8]. Recently spot on preparations containing 10% imidacloprid and 2.5% moxidectin has been approved for the control of canine generalized demodicosis with a dose of 2.5-6 mg/kg monthly once. The main aim of this study is to ascertain the efficacy of ivermectin and spot on preparations on canine generalized demodicosis

CASE DESCRIPTION

Two crossbreeds dogs aged around 1 year were presented to VCC, Hyderabad with the history of itching, pruritus, erythematous lesions on face, hindlimbs in one dog and lesions around the eye, ears in another dog (fig. 1 and 2). Clinical parameters were within normal limits. Among two dogs presented, one dog had regular vaccination and deworming history and the other one with no history of vaccination and deworming till date. The investigation for the confirmation of demodicosis was carried out by collecting skin scrapings from both the dogs by using blunt scalpel blades dipped in liquid paraffin until there was slight ooze of blood from dermal

capillaries and further examined under low power microscope after processing with 10% KOH. Further, impression smears were also collected to study the cytology.



Fig. 1 DOG WITH ERYTHMATOUS LESIONS ON FACE, HINDLIMBS AND ON BODY



Fig. 2 DOG WITH LESIONS AROUND EYES AND ON EAR

RESULTS and DISCUSSION

Skin scrapping collected from both the dogs showed positive for Demodex mites (fig. 3). Cytology of impression smear in severely affected dog showed many cocci which indicate the involvement of secondary bacterial infection (fig. 4). Based on the history, distribution of lesions and microscopic confirmation of mites, the two cases were diagnosed as generalized canine demodicosis. Dogs were treated with oral ivermectin@500ug/kg/day for a period of 15 days by monitoring the associated side effects. Dog with secondary bacterial infections were additionally treated with Amoxicillin @10 mg/kg twice a day for a period of 14 days. Amitraz spray (2ml per liter of water) was followed by benzyl peroxide shampoo bath. Whereas, in severely affected dog and dog with lesions around eye, Interban F ointment was also applied over the lesions. Improvement of clinical signs like reduction in itchiness was noticed after 15 days complete improvement after 1 month, reported as dog was free from itching. subsequently after 2 months of treatment the dog showed complete recovery and regeneration of skin and coat condition and regrowth of the complete hair (fig. 5 and 6).



Fig 3. Demodex under 10x



Fig.4. Cocci under 10x

Canine demodicosis with generalized onset can recover spontaneously in some cases but no scientific data was available confirming the statement [2]. It was reported that amitraz, oral administration of ivermectin is effective in treating canine generalized demodicosis [3,6,8,10]. Secondary bacterial infections with *Staphylococci*, *Pseudomonas* and *Proteus* also occur [5]. Successful treatment of generalized demodicosis has been reported with multiple combinations [5], amitraz was proved to be good for generalized canine demodicosis but may have many adverse effects [6]. Amitraz rinses have been associated with adverse effects, so it is recommended to perform at well-ventilated areas to prevent inhalation of active ingredients [5]. Milbemycin oxime is also used in some countries as oral daily treatment for canine generalized demodicosis, but it is costly and difficult to obtain [11]. Monthly administration of spot on containing 10% imidacloprid and 2.5% moxidectin was recently reported to be effective against generalized canine demodicosis (11). For evaluation of treatment against canine generalized demodicosis, a follow up period of 12 months is recommended



Fig. 5 Dog eyes showing recovery completely after 1 month of treatment



Fig. 6 Gradual development of severely affected dog

CONCLUSIONS

In summary, the dogs treated with oral ivermectin and amitraz topical preparations showed best results along with other supportive treatment and good managerial systems.

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