THERAPEUTIC MANAGEMENT OF MYCOTIC DEMODICOSIS IN A DOG – A CASE REPORT

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A Siberian husky dog was presented with severe itching, generalized hair fall, weak and wound on whole body with foul smell sometimes fresh blood also seen from wound, dog licks its paws and skin scales on most body parts. Cigar shaped Demodex mites in skin scraping from lesions confirmed generalized Demodicosis and presence of fungal hyphae. The dog was treated with topical Amitraz @ 0.05% twice in a week. Antibiotic therapy along with ketoconazole treated concurrent bacterial and fungal infection.

Key words: Amitraz, Demodicosis, Fungal, Ketoconazole.

Canine Demodicosis is commonly occurring skin disease in small animal practice. Canine Demodicosis is a common non contagious, inflammatory parasitic skin disease resulting from excessive proliferation of Demodex canis mites within hair follicles and sebaceous glands (Singh et al., 2011). Demodex mites are considered as normal cutaneous micro fauna in dogs (Gortel, 2006 and Shipstone, 2000). Canine Demodicosis occur when an altered immune response allow over proliferation of mite, leading to development of clinical signs. Immunosuppression or any alteration of normal physiology of the skin favours proliferation of mites in hair follicles and results in clinical demodicosis (Mueller et al., 2011). Generalized demodicosis may be severe, potentially life threatening disease and mostly associated with secondary bacterial and fungal infection require prolonged treatment (Mueller et al., 2011). Microsporum spp. of dermatophytes are most prevalent in canine but association of Trichophyton spp. with demodicosis is a rare finding in dogs. The clinical presentation of fungal dermatitis included patches of alopecia, scales, crusts, erythema, hyper pigmentation and intense pruritus and lesions were mainly observed on the back, legs, face, neck, ears and digits (Scott et al., 2001).

Case History and Observations

A Siberian husky dog was presented to TVCC, Pantnagar with the complaint of severe itching, inappetance, generalized alopecia, licking of paws with scaly lesions. Initially lesions started from face and became generalized.

Dog was previously treated by local Veterinarian with antibiotics, multivitamins, endo-ecto parasiticidal, antihistaminic preparations with no response to treatment. Clinical examination revealed several crusty, scaly lesions all over the body (Fig.-1). Skin scraping examination revealed presence of cigar shaped Demodex canis along with some fungal hyphae (Fig.-2). Haematological
observation showed Hb 11 gm%, TLC 5.4 x 10⁶/cmm, N- 48% L- 36%, M-12%, E- 4%, B-0%. On the basis of history, clinical findings and skin scrapping, the case was diagnosed as generalised demodicosis with concurrent fungal infection.

**Treatment and Discussion**

The dog was treated with lyncomycin @ 2 mg/kg b.wt. I/M, daily for seven days, ketoconazole @ 5 mg/kg b.wt. orally bid, phenerazine maleate @ 1 mg/kg b.wt., I/M, multivitamin injection, nutricote advance syrup, orally with food upto 15 days and topical spray of oxytetacycline. After 7 days treatment, lesions over the body surface was dried and improved (Fig.-3).

![Fig.3: Improved body condition](image)

The owner was advised to bath the dog with benzyl peroxide shampoo twice weekly followed by topical application of 0.05% Amitraz. On 7th day dog was treated with Amitraz 12.5% solution (4ml/Lt of water) topically. After one week of treatment improvement was seen. Skin scrapping after 4 weeks past treatment revealed absence of mites; with resolution of skin lesions and disappearance of clinical signs of pruritus. The owner was advised to follow same treatment for another few weeks until complete recovery. No adverse reactions were seen during any stage of treatment. Concurrent presence of fungal hyphae along with demodex mites indicates presence of fungal infection. In present case, use of Amitraz along with antibacterial and antifungal therapy can check demodectic infestation resulting in two consecutive negative skins scrappings; which was in agreement to findings of Mueller et al. (2011) and Singh et al. (2011). Amitraz is the miticidal drug for treatment of canine demodicosis, acts by inhibiting monoamine oxidase and prostaglandin synthesis and by stimulating a2-adrenergic receptors of arthropod nervous system. Benzyl peroxide shampoos are especially useful in treatment of generalized demodicosis because of their keratolytic effect and follicular flushing activity.

In the present case, after one month of treatment condition of dog was improved.

**References**


