

Clinical Management of Generalised Juvenile Pyodermatitis in a Labrador Pup

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Abstract

Pyodermatitis was diagnosed in a pup based on alopecia, severe erythematous lesions, pustules all over the body and on face, fore and hind limbs, inner aspect of axilla and thighs, inguinal region as well as laboratory diagnosis of skin scraping and trichography. Pup was treated with Ivermectin at 0.4 mg/kg, Amitraz 12.5 percent at 2000 ppm and Cephalexin at 15 mg/kg with clinical recovery after sixty days.

Keywords: Amitraz; cephalixin; ivermectin; pup; pyodermatitis

Introduction

Canine demodicosis is one of the common skin disease encountered in Veterinary practice in which *Demodex canis* is a normal member of cutaneous ecology of dog. Two forms are recognized, a localized form and a generalized form (Mueller, 2004). Mite *D. canis*, an ectoparasite, is a normal inhabitant of canine hair follicles and sebaceous glands of skin. Mites are transmitted by direct contact between dam and puppies shortly after birth. Canine demodicosis occurs when an altered immune response allows over proliferation of mites, leading to development of clinical signs (Horne, 2010).

History and Clinical Signs

A four and half month old male Labrador pup, weighing 4.6 kg, was presented with history of erythematous lesions and itching all over the body. Pup had alopecia and erythematous lesions on face (Fig. 1), fore limbs, hind limbs, inner aspect of axilla (Fig. 2), inner aspect of both thigh and inguinal region (Fig. 3) with pustules and severe alopecia. Dog was treated previously with antibiotics, steroids and topical application with spray containing steroids. All clinical parameters, temperature: 102.5°F, respiratory Rate: 33/minute, Pulse Rate: 90/minute were within normal range. Skin scraping and trichographic examinations revealed *Demodex canis* mites (Fig. 4). Diagnosis was based on clinical signs and laboratory findings.

Treatment and Discussion

The pup was treated weekly with Inj. Ivermectin (Neomec^a) at 0.4 mg/kg, S/c and antihistaminic. Weekly bathing with Benzoyl peroxide containing shampoo and application with Amitraz 12.5 percent (2000 ppm) was carried out for eight weeks. The pup was also treated with tab. Cephalexin at 15 mg/kg for 14 days orally, tab. Ivermectin (Neomec^a 10 mg) at 0.4 mg/kg b.wt. and supplement containing Omega 3 and 6 fatty acids. Skin scraping and trichographic examinations were undertaken at 15 days intervals. Recovery of pup was characterized by complete absence of mites on 45th day post treatment. Further, the pup showed marked improvement in terms of smooth body coat, normal feed intake and regrowth of hair and completely recovered on 60th day post treatment. Clinically, significant improvement was noted from 7th day. Gradually, erythematous lesions and pustules started to regress after 3 weeks of treatment (Fig. 5). Pruritis and alopecia almost recovered after 6 weeks of treatment (Fig. 6). Finally, pup recovered completely



Fig. 1: Alopecia and erythematous lesions on face

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Fig. 2: Fore limbs, hind limbs, inner aspect of axilla



Fig. 3: Inner aspect of both thigh and inguinal region



Fig. 4: *Demodex canis* mites



Fig. 5: Recovered fore limbs



Fig. 6: Recovered from pruritis and alopecia



Fig. 7: Complete recovery

after 8 weeks of treatment (Fig. 7). Use of Ivermectin showed complete recovery of 12 dogs from generalised demodicosis when given at 0.4 mg/kg orally (Medleau *et al.*, 1996). It was also found that when Ivermectin was given at 400 µg/kg SC every 7 days, generalized demodicosis was cured (Scott and Walton, 1985). Amitraz is first effective topical treatment for demodicosis. Protocol of Amitraz varies from country to country, in USA 0.025 percent solution has been applied every two weeks and in Germany and Australia, a stronger solution of Amitraz at 0.05 percent has been used on weekly basis (Kumar *et al.*, 2013). Through identification, elimination of concurrent pyoderma is critical to successful treatment of demodicosis (Shipstone, 2000). In present case, complete recovery from pustules lesions were found after 2 weeks of treatment with oral anti-biotic. The antibiotic therapy was continued for one more week to avoid reoccurrence of any secondary bacterial infections.

Conclusion

As this disease is common in pups, treatment is more challenging especially when the condition is generalised. Complete cure was achieved through owner compliance and regular follow-up. From

present case, it was found that simultaneous use of Ivermectin (Neomec^a) at 0.4 mg/kg along with Benzoyl Peroxide containing shampoo, amitraz, antibiotic and anti-histaminic is suitable for treatment of pyodermatitis in canines, which resulted in complete recovery after 60 days post treatment.

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