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Therapeutic management of Sarcoptic mange in dog with lime sulphur: A case report

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Abstract

In skin disease, Mange is a contagious, intensely pruritic transmissible and zoonotic skin disease affecting all the domestic animals. Sarcoptic mange is a most important type of mange in mange infestation. A 3 Month old dog of Labrador was presented to the VCC, PGIVER, Jaipur. History was severe itching and generalized lesions on the body surface. During clinical examination found scaled lesions over the margins of both ear pinnae and head of the affected dog. There was generalized alopecia with erythema over chest, forelimbs, back and head. Skin lesions were reddish in colour. According to morphologically, showed the presence of *Sarcoptic scabies var canis* mites in slide during skin scraping examination. This dog was treated with Cefpodoxime Proxetil oral suspension @ 5-10 mg, orally for 4 days, lime sulphur Demoscanil solution, immnuobooster. There was absence of mites during skin scraping examination after 6 week treatment period and the dog recovered.

Keywords: Contagious, sarcoptic, zoonotic, intensely pruritic transmissible

Introduction

Sarcoptic mange or canine scabies is contagious, intensely pruritic transmissible and zoonotic skin disease affecting all the domestic animals (Curtis, 1996; Miller *et al.*, 2013) [2, 5]. Mites are affected to all domestic and pet animals including human also which affected the skin and lymph and causes sore, scabs and secondary infections. In animals, mite's infestation spread, if it is not properly treated quickly. All these burrowing mites are in the family Sarcoptidae. Primarily Scabies is spread by direct contact between infected and susceptible animals. Bedding, clothing and furniture of affected animals are also other causes which spread scabies in animals. It is also a source of transmission of scabies in animals (Johnston and Sladden, 2005; Chosidow, 2006) [3, 1]. Recognition of Scabies is usually based on clinical signs and skin examination (Chosidow, 2006) [1].

Case history and Observation

A 3 Month pup of Labrador was presented to the VCC, PGIVER, Jaipur. History was severe itching and generalized lesions on the body surface. During clinical examination found scaled lesions over the margins of both ear pinnae and head of the affected dog (Fig. 1 and 2). There was generalized alopecia with erythema over chest, forelimbs, back and head. Skin lesions were reddish in colour. It developed over a period of 10 to 12 days. The rectal temperature was 102.5°F, conjunctival mucous membrane is normal.

Diagnosis and Treatment

Skin scrapings were collected for microscopic examination (10x) for confirmative diagnosis. The parasite was identified according to its morphological characteristic as *Sarcoptic scabies var canis* infestation (Fig 3). Identification of *Sarcoptic scabies var canis* is correlated with Soulsby (1986) [9] and Rathod *et al.*, (2023) [7].

The Scabies was treated with Demoscanil @ 25 ml in 1 litter water and spray on affected area, Advamun @ 5 ml orally, twice a day as immunomodulatory, Curabless locally use for bacterial and fungal infection management for 60 days.



Fig 1: Crusty lesions on head and ear pinna



Fig 2: Crusty lesions on legs

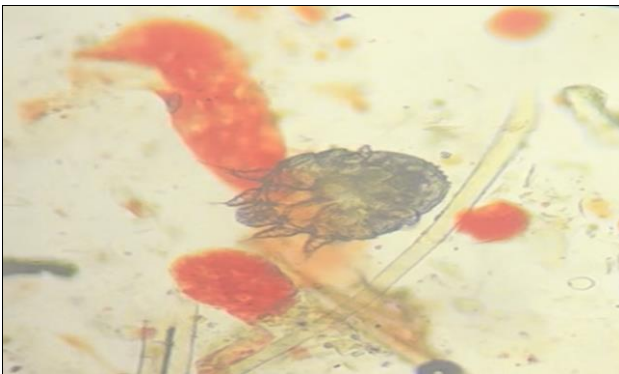


Fig 3: *Sarcoptes scabiei* var *canis* present during skin Scraping examination



Fig 4: Recovered after treatment of *Sarcoptes scabiei* var *canis* in six weeks

systemic infection but also found skin damage over the margins of both ear pinnae and head of the affected dog and animal was also emaciated (Lughano and Dominic, 2006)^[4]. For Confirmatory diagnosis, identified morphologically the presence of *Sarcoptes scabiei* var *canis* mites in skin scraping examination under microscopically (10x). Similar findings have also reported by Chosidow (2006)^[1], Rathod *et al.*, (2023)^[7].

For skin management, skin treated with anti-biotic and anti-fungal ointment Curabless and Cefpodoxime Proxetil oral suspension @ 5-10 mg, orally, respectively and also lime sulfur Demoscanil solution spray on affected area of body surface. Lime sulfur is very drastic effective on mites infection and also safe in young dogs and cats. (Robert, 2011, Oluchi, (2015)^[8, 6]. Advamun is a good immune booster for healthy skin.

There was absence of mites during skin scrapping examination after 6 week treatment period and the dog recovered (Fig. 4).

In zoological aspect, mites can cause skin problem in human because sometimes human very close to contact with skin problem affected dog or cats.

Conclusion

Scabies is a transmissible, pruritic and zoonotic type skin disease affecting all the domestic animals and human. In Prevention, prevent exposure to mites by treating infected pets, livestock. Safety measures decrease the risk of transmission when handling affected animals with skin disease. Always wash hands after having contact with affected animals with skin diseases.

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Results and Discussion

The scabies was reported in a dog of about 3 month pup of Labrador. On clinical examination, not found fever and