

A Monthly e Magazine
ISSN:2583-2212
May, 2023; 3(05), 790-792

Popular Article

Sarcoptic Mange and Its Successful Therapeutic Management in Rabbits

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(MP)-482001

<https://doi.org/10.5281/zenodo.7961746>

Abstract

A 2-year-old, rabbit, weighing around 500 g, was presented to Veterinary Clinical Complex, Jabalpur (M.P.) with a history that the rabbit was having certain lesions around the eyes and in elbow region, also they complained about hair fall since few days. Clinical examination revealed poor body coat, crusty lesions around the eyes, lips, feet, intense pruritis and shaking of head. The crusts were scaly in nature. Therapeutic management was done with Inj. Ivermectin @ 0.2 mg/kg body wt. SC at weekly intervals for 4 weeks, followed by supportive therapy with an application of betadine (Povidone iodine) over the skin lesions was applied. Syrup Rabbit-M (multivitamin) 3 drops BD for 15 days was advised. The Rabbit recovered healthily after the treatment. and scrapings were negative for mites.

Keywords: Rabbit, Sarcoptic mange, crusty lesions, Ivermectin.

INTRODUCTION:

Sarcoptic mange or scabies is very commonly encountered in dogs, but is now one of the frequently being diagnosed case in many rabbits. It is highly contagious in nature and can easily spread from the infected ones to a healthy one through direct contact. Rabbits are very sensitive to any sort of medication we use. They also have a peculiar diet that has to be followed for their healthy life. Hence, Ivermectin use must be according to the correct dosage and along with that certain supportive therapy is must. Vitamin supplements and a constant check on the diet will help for the early recovery. Maintenance of a clean and hygienic environment are must for the rabbits. Overcrowded living condition and poor hygiene are significant predisposing factors for infection with *Sarcoptes scabiei* (McCarthy, 2004). Sarcoptic mange therefore has become a common and



major constraint in rabbit production in India (Ravindran and Subramaniam, 2000) due to hot and humid climate (Aulakh et al., 2003). There often occurs intense pruritis, self-excoriations, alopecia. In some cases, severe crusty lesions are also seen.

Case History

A 2-year-old, male rabbit was presented in the Veterinary Clinical Complex, College of Veterinary Science & A.H., Jabalpur, M.P. with a history of anorexia, intense itching, severe pruritus, erythematous and hair fall.

Clinical Signs

On further examination, it was seen that there was intense pruritis with alopecia. There were dry crusty lesions around the eyes, lips and elbow regions. Excoriations were also seen as a result of intense pruritis.

Diagnosis

For proper diagnosis, skin scrapping has to be conducted in order to confirm sarcoptes. Skin scrapping of both superficial and deep skin tissues are must. Both deep and superficial skin scrapings were collected from areas around the nose, lips ears, elbow and foot. After collection of the sample, it was mixed in 5 ml of 10% Potassium hydroxide (KOH) (Birchard and Sherding, 2000). Then the sample was examined under low power microscope and it revealed large numbers of *Sarcoptes scabiei* mite. Based on the history, clinical and microscopic examination of skin scrapings *Sarcoptes* infection was confirmed. The morphological analysis is very essential to differentiate other mites of rabbits. These are distinguished on the basis of microscopic evaluation (Radi, 2004).

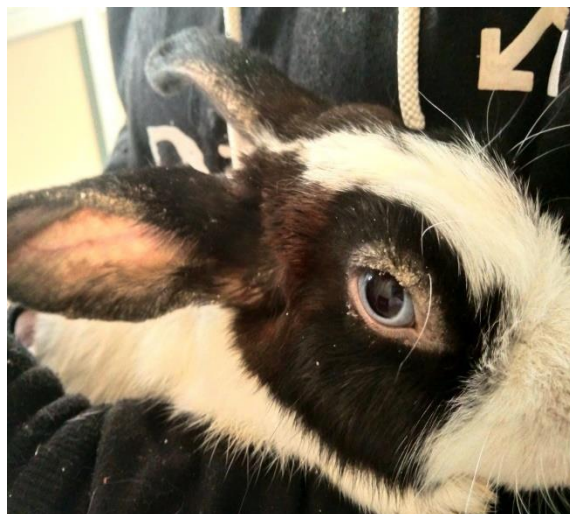


Fig. 1 Picture showing dry crusty lesions around the eyes, lips.

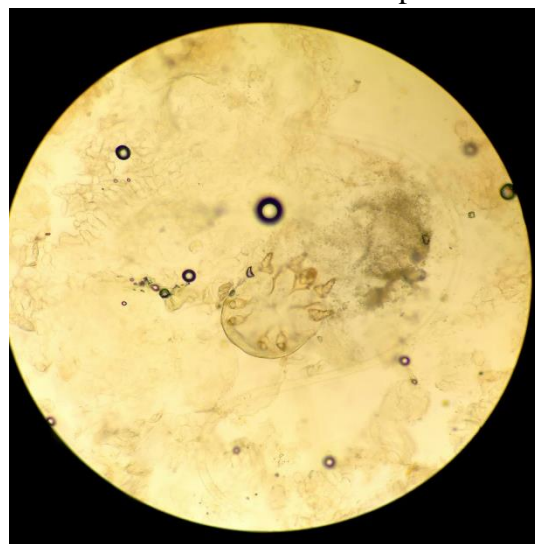


Fig. 2 Skin scrapings showing *Sarcoptes scabiei* mites.



Treatment

The affected rabbit was treated with Ivermectin at the rate of 200 µg/kg body weight, subcutaneously at weekly intervals for four weeks. Further, supportive therapy with an application of betadine (Povidone iodine) over the skin lesions was applied. Syrup Rabbit-M (multivitamin) 3 drops BD for 15 days was advised. Improvement was seen after the 2nd dose itself. The deep skin scrapings taken from the same site revealed absence of mites after four weeks of treatment. At the same time, clinical signs like alopecia and intense itching were also reduced.

Mange caused by Sarcoptic species is more common in rabbits and diagnosis is usually confirmed by microscopic skin scrapping examination. In the present study, demonstration of mange under microscope along with skin lesions was sufficient for confirmatory diagnosis of Sarcoptic mange.

Conclusion

In the present case, treatment with Ivermectin @ 200 µg/kg body weight, subcutaneously was carried out and proved to be effective in treating Sarcoptic mange whereas Aulakh *et al.* (2003) reported that 200 µg/kg body weight introduced subcutaneously once a week for 2 weeks was an effective treatment for the same type of mange. Ivermectin selectively binds to glutamate gated and gamma amino butyric acid (GABA) gated chloride channels in the mite's nervous system, resulting in hyperpolarization of cells, paralysis and finally death of mites (Aulakh *et al.*, 2003; Quesenberry and Carpenter, 2004).

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