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Short Communication

THERAPEUTIC MANAGEMENT OF SARCOPTIC MANGE IN RABBIT- A CASE REPORT

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ABSTRACT
In the present study a rabbit was presented to T.V.C.C with the history of itching in ears, nose and anorexia. Close physical examination revealed erythema, alopecia around eyes and on head, white indurate dry crust like lesions on ears pinna and face. Skin scrapings revealed Sarcoptic *sp*. mite. Treatment was done with subcutaneous injection of Ivermectin @ 300 µg/kg body weight at weekly intervals for two weeks. After two weeks, clinical examination revealed marked improvement of lesions and scrapings were negative for mite.

KEYWORDS: Rabbit, Intense itching, Sarcoptic mange, Ivermectin.

INTRODUCTION

Rabbits are vulnerable to get variety of parasitic infestations and among that incidence of mange are quite high in them (Rajeshwari *et al*., 2001). *Sarcoptes scabiei* is more common mange in rabbits and distinguished by presence or absence of prurites, morphology of mite and distribution of lesions (Deshmukh *et al*., 2010 and Bhardwaj *et al*., 2012). Among various species of burrowing mites, *Sarcoptes scabiei* is a deep burrowing mite in epidermis causing intense itching, pruritis, crust formation, scale production, thickening and wrinkling of skin of affected area. Over crowded 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 Subramanium, 2000) due to hot and humid climate (Aulakh *et al*., 2003).

Diagnosis is usually confirmed by skin scrapings examination and results are sometimes falsely negative for which repeated deep scrapings are recommended (Birchard and Sherding, 2000). Sarcoptic mange if left untreated may cause significant morbidity and economic losses. The present paper reports successful therapeutic management of sarcoptic mange in a rabbit.

HISTORY AND CLINICAL OBSERVATION

A rabbit aging one year was presented teaching veterinary clinical complex with the history of itching in ears, nose and anorexia. On close physical examination erythema, alopecia around eyes and on head, white indurate dry crust like lesions on ears pinna and face were observed. For confirmatory diagnosis, skin scrapping examination was carried outas per the standard method (Soulsby, 1985).Sample of skin scrapping was collected aseptically from periphery of lesions from multiple sites in 10% potassium hydroxide. The mixture was heated, centrifuge and supernatant discarded, a few drops of sediment were placed on a slide for direct microscopic examination. Result revealed the presence of large number of Sarcoptes species.

TREATMENT AND DISCUSSION

After confirmation by laboratory investigation of Sarcoptic mange, affected rabbit was treated with injection Ivermectin @ 300 µg/kg body weight, subcutaneously at weekly intervals for two weeks along with supportive treatment of betadine solution (5%) topically regularly for 2 weeks and solution Amitraz (12.5 %) applied topically twice a week for two weeks. There was marked improvement in skin lesions after two weeks of treatment. No mites could be detected microscopically in skin scrapings on day 14 post treatment. Moreover there was marked improvement in the skin lesions and physical condition of the rabbit.

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.

In the present case, treatment with Ivermectin @ 300 µg/kg body weight, subcutaneously was carried out and proved to be effective in treating Scarcoptic 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 butaric acid (GABA) gated chloride channels in the mites nervous system, resulting in hyperpolarization of cells, paralysis and finally death of mites (Aulakh *et al*., 2003; Quesenberry and Carpenter, 2004).

FIGURE1: Picture showing dry crusty lesions on around nose and eyes.

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