Rabbits are vulnerable to get variety of parasitic infestations and among them the incidence of mange is quite high (Rajeshwari et al., 2001). Sarcoptes mange infestation is one of the most common and major constraint in commercial rabbit production in India (Darzi et al., 2007). Burrowing mites (Sarcoptes scabiei and Notoedres cati) present a zoonotic danger; affecting dogs, cats and humans causing a transient itching dermatosis. Sarcoptes scabiei is more common mange in rabbits and distinguished by presence or absence of prurites, morphology of mite and distribution of lesions and if left untreated may cause significant morbidity and economic losses (Bhardwaj et al., 2012). Ivermectin is used as broad spectrum parasiticide in domestic animals and is also used for acariosis (Aulakh et al., 2003). The present communication reports successful therapeutic management of Sarcoptic mange in rabbits with ivermectin.

Case History and Clinical Examination
Seventeen non-descript rabbits of a colony were presented with history of skin lesions at Veterinary Clinical Complex of the College in Anand. Clinical examination revealed alopecia, erythema, crust formation, scale and scab formation on nose, legs and ear pinna with pruritus (Fig. 1 & 2). Skin scrapping and crusts were collected and digested in 10% KOH for microscopic examination (Soulsby, 1985), which revealed Sarcoptes scabiei mites (Fig. 3). Based on history, clinical lesions and laboratory findings, the cases were diagnosed as Sarcoptic mange infestations.

Treatment and Discussion
The affected rabbits were treated with Inj. ivermectin @ 400 μg/kg body weight by s/c route, weekly for four weeks, along with multivitamin drops given orally daily. Disinfection of

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cages was done with 1.25 % Deltamethrine @ dilution of 5 ml/lit of water. Some of the skin scrapings were examined and found negative for mites on second week. Skin lesions like itching, crust and scale formation and erythema were resolved by fourth week.

Sarcoptic mange is a highly contagious zoonotic parasitic infection caused by a burrowing mite (Sarcoptes scabiei) in the epidermis of animals, including men. The mite is easily transmitted to other animals through close contact. Overcrowded living conditions and poor hygiene are significant factors for infection with Sarcoptes scabiei (Kachhawa et al., 2013). The feeding behaviour of larvae and nymphs causes irritation, hypersensitivity reaction and inflammation with subsequent hyperkeratosis, seborrhea and alopecia (Scott et al., 2001). In present study, rabbits exhibited alopecia, erythema, crust formation and pruritus. Lesions were seen on nose, legs and ear pinna. The findings were in accordance with Lakshmi and Padmaja (2013). Treatment with injection ivermectin @ 400 μg/kg body weight subcutaneously weekly for four weeks was effective in controlling the sarcoptic mange in rabbits. Ivermectin selectively binds to glutamate-gated and gamma-aminobutric acid (GABA)-gated chloride channels in the mites nervous system, resulting in hyperpolarization of cells, paralysis and finally death of mites (Haritha et al., 2016).

Ivermectin was found more effective than doramectin in rabbits affected with sarcoptic and psoroptic mange (Bhardwaj et al., 2012). Disinfection of rabbits’ cages with deltamethrine spray helped in controlling the mange. Darzi et al. (2007) and Mitra et al. (2014) used blow lamp for control of mange in rabbit’s cages. The present observations suggest that ivermectin therapy along with proper management and disinfection of rabbit house was effective in controlling Sarcoptic mange in rabbits.

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References


