

Therapeutic Management of concurrent Sarcoptic and Psoroptic Acariosis in Rabbits

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Abstract

Eight New Zealand white rabbits were presented with clinical signs of pruritus, alopecia, scab and crust formation and lichenification initially on upper lip which later extended to full face, ear pinnae, eyelids, lower jaw and limbs. Skin scrapping revealed mixed infestations of *Sarcoptes cuniculi* and *Psoroptes cuniculi*. Subcutaneous injection of ivermectin at weekly intervals for four weeks resulted in remission of clinical signs and improvement.

Keywords: Ivermectin; *psoroptes cuniculi*; rabbit; *sarcoptes cuniculi*

Introduction

Mite infestation is one of the most common and major constraint in both pet and commercial rabbit population in India (Darzi *et al.*, 2007; Ravindran and Subramaniam, 2000). *Sarcoptes cuniculi* and *Psoroptes cuniculi*, the burrowing and non burrowing mites respectively are most common mites prevailed in rabbits (Aulakh *et al.*, 2003; Saha and Mukherjee, 1998). Being a contagious parasitic skin disease, mites are generally spread from rabbit to rabbit by direct skin contact between infected and non-infected rabbits or through contact with the environment. Psoroptes infection is characterized by extreme crusting, scaliness, scabiness and itchiness of the external ear canal and pinnae, but the same clinical signs can be seen in lips, nose, neck, legs and sometimes around genitalia in case of *Sarcoptes* infestations. Various acaricides have been used to control the disease of which ivermectin given orally or parenterally has been reported to be effective in treatment of acariosis (Aulakh *et al.*, 2003; Eraslan *et al.*, 2010). The present study describes the degree of parasitemia in eight mite infested rabbits, along with their successful therapeutic management with subcutaneous administration of ivermectin.

History and Observations

Eight New Zealand white rabbits were presented

with history of inappetence, itching, alopecia and rough hair coat. Physical examination revealed dullness and depression with presence of diffused erythema, crust, scale and scab formation in lips, nose, ear pinna and inter-digital space and patchy alopecia over face, around eyes and border of ear pinna (Fig. 1). Both deep and superficial skin scrapping was taken separately from 4-5 different skin lesions for detection of mites and fungal culture, respectively. The deep skin scrapping revealed severe infestation of either or both *Sarcoptes cuniculi* and *Psoroptes cuniculi* mites in different rabbits (Fig. 2). Table 1 represents the degree of parasitemia in each rabbit. There was absence of any fungal mycelli in superficial scrapping in culture media. On the basis of skin scrapping examination and clinical signs the cases were diagnosed as mixed infestations of *Sarcoptes* and *Psoroptes* mites.

Treatment and Discussion

The rabbits were treated with Ivermectin @ 400µg/kg body weight, subcutaneously at weekly intervals for four weeks. Zincovit[®] was administered orally as 5 drops per animal twice a day. The therapy was accessed 2 weeks after the start of the treatment thereafter repeated fortnightly. The deep skin scrapping taken from the same sites revealed absence of mites at 2 weeks post treatment. At the same time, general condition improved and skin lesions resolved, and clinical signs of pruritus disappeared. Lesions due to scratching rapidly resolved over the whole body

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