

## Successful therapeutic management of sarcoptic mange in rabbit – A Case Report

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### Introduction

Dermatological problems are one of the most common clinical entities in domestic pets and fur bearing animals (Deshmukh *et al.*, 2010). Among dermatological disorders, mite infestations in rabbits become common and major constraints in India (Ravindran and Subramanian, 2000). Mange causes severe pruritus, alopecia, inappetance, ear canker, self-inflicted trauma and deaths. *Psoroptes cuniculi* infestation in rabbits is common and cause ear canker while Sarcoptic mange due to *Sarcoptes scabiei* infestation is comparatively less common in rabbits (Radi, 2004). Among various species of mites, *Sarcoptes scabiei* is a deep burrowing mite in epidermis causing intense itching, pruritis, crust formation, scale production, thickening and wrinkling on skin of affected area (Kachhawa *et al.*, 2013). It is most obstinate, persistent and zoonotically important contagious disease (Kumar *et al.*, 2002).

Diagnosis is generally

confirmed by skin scrapings and Ivermectin @ 300 – 400 µg/kg body weight, subcutaneously is effective in controlling scabies in rabbits (Birchard and Sherding, 2000). The present case report is about the successful therapeutic management of *Sarcoptes* spp. infestation in a rabbit using ivermectin along with other supportive therapy.

### Materials and methods

A male rabbit of 4 months age was presented to the Teaching Veterinary Clinical Complex, College of Veterinary Science and A.H., Jabalpur with the complaint excessive itching, crusty skin, rough hair coat, decreased appetite and weight loss. Close clinical examination revealed, alopecic patches and dry

crusty lesions involving pinnae, paws and muzzle. Deep skin scrapings were collected from ear margins and paws. Skin scrapings were processed as per the standard procedures using 10% KOH (Soulsby, 1985). The rabbit was treated with injection Ivermectin at the dose rate of 400 µg/kg body weight, subcutaneously at weekly intervals for four weeks. Supportive therapy included syrup levocetirizine @ 1.25mg/kg body weight orally once daily for 7 days, topical application of povidone iodine daily and weekly bathing with anti-sebborrhic shampoo.

### Result and Discussion

On the basis of history, clinical manifestations and detection of different developmental stages of mites in skin scrapings, the rabbit was confirmed for sarcoptic mange. There was marked improvement in itching and skin lesions after two weeks of treatment and the rabbit recovered completely after four weeks of treatment. No mites were seen in the microscopic examination of skin scrapings after four weeks of treatment.

Sarcoptes infestation is one of the common dermatological infestations which is caused by *Sarcoptes scabiei* mite. In the affected animals, mange lesions were mostly found on the edges of ear, nose, face and legs. The lesions characterized by loss of hair, thickening of the skin, dirty crusted irregular raised dried scabs with erythema and disfigured ears. Similar symptoms were also observed by various scientists (Rajkhowa *et al.*, 1997; Soundararajan and Iyue, 2005; Darzi *et al.*, 2007). Overcrowded living conditions and poor hygiene are significant factors for infection with *S. scabiei* mites (McCarthy *et al.*, 2004).

Diagnosis is generally confirmed by skin scrapings and Ivermectin @ 300 – 400 µg/kg body weight, subcutaneously is effective in controlling scabies in rabbits (Birchard and Sherding, 2000). Kamal and Muhammad (2015) in their study reported that all animals shown significantly recovery after therapy, but the regression of lesions was faster in rabbits when administered 400 µg/kg of ivermectin

subcutaneously. The dose rate of ivermectin in the present study was @ 400 µg/kg subcutaneously which correlates well with the previous studies. Moreover, the avermectin group of drugs includes ivermectin, abamectin, doramectin, eprinomectin and selamectin, which can be used to treat rabbits that are naturally infected with scabies (Kachhawa *et al.*, 2013).

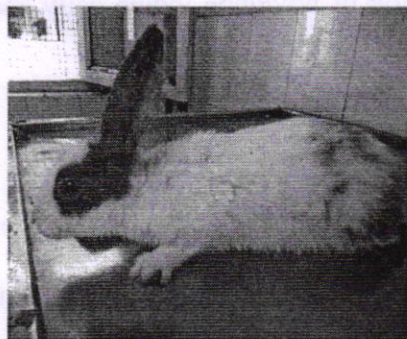


Fig. 1



Fig. 2

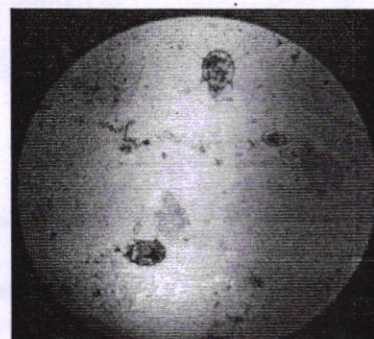


Fig. 3

Fig. 1& 2: Alopecia, dry and scaly lesions in rabbit infested with *Sarcoptes* mite  
 Fig. 3: Skin scraping showing *Sarcoptes scabiei* mite

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