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Clinical management of Sarcoptic mange in a Rabbit: A case report

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Abstract

In the present study one year old rabbit was presented at teaching veterinary clinical complex, College of Veterinary Science and A.H., N.D.V.S.U., Jabalpur with the history of pruritis, alopecia, inappitance, alopecia and dry crust formation on skin of the affected areas (nose, ears lobes, paws). The skin scraping examination revealed *Sarcoptes* spp. mite. Treatment was done with subcutaneous injection of Ivermectin @ 300 µg/kg body weight at weekly intervals for four weeks. There was gradual improvement in clinical condition and rabbit was completely cured after therapy.

Keywords: Rabbit, Sarcoptes, Ivermectin

Introduction

Sarcoptes spp. is a burrowing mite that inhabits the epidermis of skin and cause sarcoptic mange in mammals and humans (Suckow *et al.*, 2002) [6]. Mites cause irritation, hypersensitivity and inflammation with hyperkeratosis, seborrhoea and alopecia (Scott *et al.*, 2001a) [3]. Lesions most commonly appear on face, neck, ears and paws of the rabbit. The intense purities often cause alopecia and dermal abrasion which leads to encrustation and secondary bacterial dermatitis. Chronic cases can leads to anorexia, lethargy, emaciation and death (Scott *et al.*, 2001b) [4].

Case history

A rabbit aging one year old was presented teaching veterinary clinical complex with the history of pruritis, alopecia, inappitance, alopecia and dry crust formation on skin of the affected areas (nose, ears lobes, paws) Fig. 1.



Fig 1: Rabbit showing dry crusty lesions on skin of the affected areas (nose, ears lobes, paws).

For confirmatory diagnosis deep skin scrapings from each rabbit were taken from different sites viz. ear, feet, nose, eyes. These scrapings were placed in a petri dish. Each sample was dissolved in 5 ml of a 10% solution of potassium hydroxide (KOH). The mixture was stirred, centrifuged and supernatant discarded from each sample; a few drops of solution were placed

on a slide for examination using a light microscope under 40X magnification and revealed that adult *Sarcoptes* spp. (Fig. 2) along their egg which confirms that rabbit was infested by *Sarcoptes* mange, Soulsby (1985) [5]. The mite has a round body and short legs. All the four pair of legs was not projecting beyond the body margins. Microscopic evaluation of the morphology and physical characteristics of the mites can be used to differentiate sarcoptic mites from other mites that are found in rabbits (Radi *et al.*, 2004) [2].

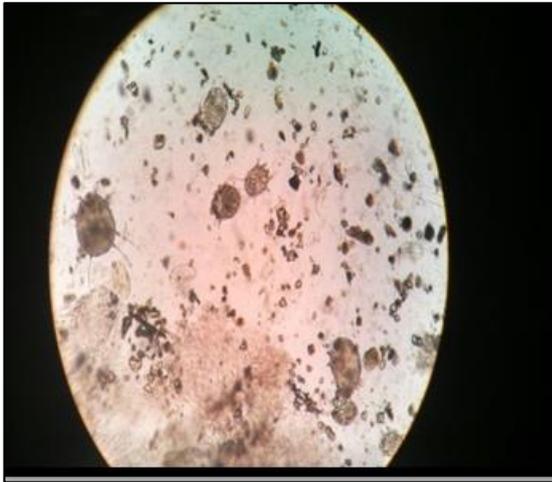


Fig 2: Scrapping containing *Sarcoptes* spp.

Treatment and Discussion

Rabbit was treated with Injection Ivermectin (Hitek, Virbec) 1% w/v @ 300 µg/kg body weight, subcutaneously once weekly for 4 week along with supplemented by syrup (Zipvit, Intas) @ 0.5 ml /kg body weight, orally for 10 days and injection pheniramine maleate (Avilin vet, MSD) @ 1 mg/kg body weight, intramuscularly and tablet of the same were followed orally for 5 days. There was marked clinical improvement on day 14th of treatment with reduced lesion. 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.

Ivermectin given @ 300 µg/kg bw bind to glutamated and GABA gated chloride ion channels in the mites nervous system causes hyperpolarization of cell, paralysis and finally death of the mites (Aulakh *et al.*, 2003) [1]. However present study indicate that Ivermectin with proper supplement therapy is effective in control and complete treatment of mange in rabbit.

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