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A clinical case of ear canker and alopecia in a rabbit

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Abstract

A two year old male rabbit was presented with history of itching; rough hair coat and hair fall from last 15 days with reddish brown crust formation on ears, paws and around eyes. Skin scraping revealed the presence of *Psoroptes cuniculi* (ear mite) thus diagnosing the case of ear canker. Treatment with Ivermectin (Ivomec) @ 0.02mg/kg Subcutaneously weekly for 4 weeks, Pheniramine maleate (Avil) @ 0.5 mg/kg Intramuscular and topical application of honey and turmeric mix daily for 1 week was accomplished which resulted in substantial clinical improvement recorded in terms of decreased frequency of itching, regained smooth hair coat and lustre of hair and skin.

Keywords: Honey, ivermectin, *Psoroptes cuniculi*, rabbit, skin scraping, turmeric

1. Introduction

Skin infections are the major problems and a big constraint in commercial rabbit production [1]. Due to hot and humid climate of India, the incidence of skin infections is very high [2]. Among the major skin infections, *Psoroptes* mange popularly known as “Ear Canker” caused by *Psoroptes cuniculi* is a serious problem seen in intensively reared rabbits. Itching, hair fall, erythema and crusting of the ear pinna with exudative pruritic skin inflammation are the major clinical signs manifested.

It is a contagious parasitic skin disease which spread from rabbit to rabbit by direct contact between infected and non-infected rabbits. Stress, dirty, unhygienic conditions, lack of proper nutrition, over-crowding with severe heat and cold environmental conditions are various contributing factors responsible for the infestation of the mange [4, 5] Primarily reported anthroponozoonosis of the *Psoroptes cuniculi* in rabbits in India. Diagnosis is usually confirmed by presence of mite on skin scraping examination [6]. The efficacy of ivermectin against ear mite in rabbits has been reported [7]. A combination of ivermectin with benzyl benzoate in the treatment of ear mite infestation in rabbits is also effective [8]. Further, proper disinfection with proper cage management and restricting the contact of infected rabbit from the flock should be followed routine to effectively control the mange in rabbits.

2. Material and methods

2.1 Case history

A two years old male rabbit was presented to Teaching Veterinary Clinical Complex, International Institute of Veterinary Education and Research, Rohtak, with a history of intermittent inappetance, severe itching and scratching, rough hair coat and hair fall from last 15 days with scab and reddish brown crust formation on toes, face and around eyes (fig. 1A). Erythematous and crusteous lesions around eyes and on ear pinna revealed alopecia and exudative skin inflammation with pain on clinical examination (fig. 1B). Skin scraping was collected in 10% potassium hydroxide from affected areas further the mix is heated to digest the collected scraping and examined under microscope which revealed presence of ear mite “*Psoroptes cuniculi*” (fig. 2).

3. Results

Based on clinical and skin scraping examination, the present case was diagnosed ear mite infection. Hence the case was treated with inj. Ivomec@ 0.02 mg/kg subcutaneously weekly for 4 weeks, Inj. Avil 0.2 ml i/m, Proviboost drops (2 drops daily for 1 week) and betadine lotion on affected areas twice daily. Owner was advised to apply honey and turmeric mixture once daily for 7 days on affected parts. Disinfection of the rabbit cage was advised to be done. Following treatment improvement in the condition was markedly observed with the dryness of the exudative lesions, lustrous and smooth hair coat, stoppage of itching and hair growth on the otherwise affected parts.



Fig 1: Rabbit having crustaceous lesions on feet with patchy alopecia (A) along with crust formation on ears, face and around eyes (B).

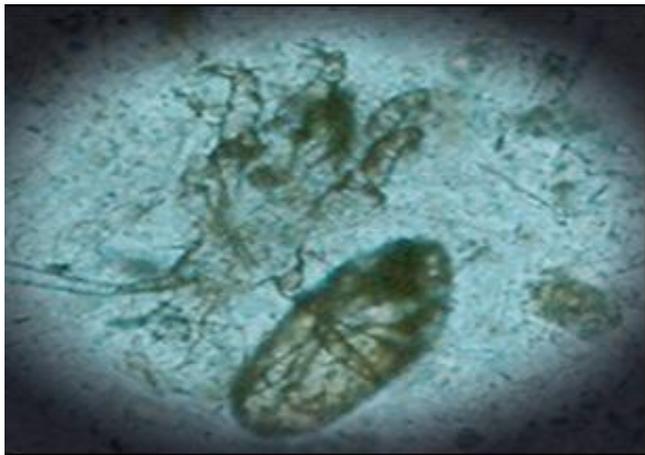


Fig 2: Skin scraping of canker affected rabbit showing *Psoroptes cuniculi*

4. Discussion

Ear mange is a common parasitic disease of rabbits and is caused by the parasite *Psoroptes cuniculi* [9]. Mostly affects ears but in some cases may spread to surrounding areas including head, neck, abdomen, paws and legs. Clinical manifestation including reddish brown crust formation on ears, paws and around eyes, itching, exudation are in conformity with the findings of [10]. Local inflammations with serum exudation that coagulates and from encrustation are explained as mite puncture the epidermis where it sucks the lymph [11]. Intense itching and scratching leads to oozing out of blood from affected parts.

Present case was successfully managed by administration of ivermectin weekly for 4 weeks which acts by selectively binding with glutamate gated or GABA gated chloride channel present in muscle and nerve cells of mites and thus causes paralysis resulting in death of mites. After 2 weeks of treatment rabbit, crust on the ears and face disappeared with smooth skin and hair coat was noted. Effectiveness of ivermectin in ascariasis orally and parenterally has been studied and widely used for the treatment [12]. Further, the efficacy of ivermectin and doramectin was also compared but ivermectin was found to be more effective in the treatment of mange in rabbits [13]. Moreover, it can easily infest human beings so its zoonotic importance cannot be ruled out thus making mite infestation a serious problem of concern.

5. Conclusion

The present case of ear canker was diagnosed with recovery

of ear mite *Psoroptes cuniculi* from the skin scrapings of the affected parts including toe, ear, face and eyes. The affected rabbit suffered a substantial loss of hair (patchy alopecia) in and around the affected sites. The case was treated with Ivermectin Subcutaneously @ 0.02mg/kg weekly for 4 weeks, Pheniramine maleate Intramuscular @ 0.5 mg/kg along with topical application of honey and turmeric mix daily for 1 week, which showed marked improvement including decreased itching frequency, returning of smooth and lustre hair coat and skin.

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7. References

1. Darzi MM, Mir MS, Shahardar RA, Pandit BA. Clinicopathological, histochemical and therapeutic studies on concurrent sarcoptic and notoedric acariasis in rabbits (*Oryctolagus cuniculus*). *Veterinarski Arhiv*. 2007; 77:167-75.
2. Aulakh GS, Singla LD, Singla N. Pathology and therapy of natural notoedric acariasis in rabbits. *Journal of Veterinary Parasitology*. 2003; 17:127-129.
3. Praag van E, Maurer E, Saarony T. Skin diseases of rabbits, 2010. www.MediRabbit.com.
4. Acar A, Kurtdele A, Kerem-Ural K, Cingi CC, Karakurum MC, Yagci CC, *et al*. An Ectopic Case of *Psoroptes cuniculi* Infestation in a Pet Rabbit. *Turkish Journal of Veterinary and Animal Sciences*. 2007; 31(6):423-425.
5. Swarnakar G, Sharma D, Sanger B, Roat K. Infestation of ear mites *Psoroptes cuniculi* on farm rabbits and its anthrozoosis in Gudli village of Udaipur District, India. *International Journal of Current Microbiology and Applied Sciences*. 2014; 3(3):651-656.
6. Birchard SJ, Sherding RG. *Saunders Manual of Small Animal Practice*. 2nd Edn. W.B. Saunders Company, Philadelphia, 2000.
7. Curtis SK, Housley R, Brooks DL. Use of ivermectin for treatment of ear mite infestation in rabbits. *Journal of American Veterinary Medical Association*. 1990; 196(7):1139-1140.
8. Chakurkar EB, Sundaram RNS, Bhattacharyya AR.

- Efficacy of benzyl benzoate and ivermectin in the treatment of ear mite infestation in rabbits. *Indian Veterinary Journal*. 1997; 74(4):288-289.
9. Perucci S, D'Agostino C. Life-cycle stage morphology and ectopic localization of *Psoroptes cuniculi*, XXII Congresso Nazionale della Societa Italiana di Parasitologia. Grugliasco, Torino, Italy. 2002, 52-53.
 10. Jana PS, Guha C, Saha SB, Biswas U, Datta S, Baksi S. Clinico-pathological and therapeutic studies on natural psoroptic acariosis in rabbits. *Bangladesh Journal of Veterinary Medicine*. 2004; 2(2):155-158.
 11. Griffiths HJ. Some common parasites of small laboratory animals. *Laboratory Animals*. 1971; 5:123-135.
 12. Eraslan G, Kambur M, Liman BC, Cam Y, Karabacak M. Comparative pharmacokinetics of some injectable preparation containing ivermectin in dogs. *Food and Chemical Toxicology*. 2010; 48:2181-2185.
 13. Bhardwaj RK, Mir IA, Ahmad O, Kumar A, Wahid A, Bhardwaj D. An outbreak of mange in rabbits. *Indian Veterinary Journal*, 2012; 89:78.