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## Therapeutic management of notoedric mange in cat: A case report

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### Abstract

A 6 month old Persian cat was presented at the Veterinary Clinical Complex, Jabalpur with a history of hair fall, severe itching, and scratching at the ear pinnae. On further physical examination scaly, alopecic lesions were found on the margins of the inner side of the ear pinnae. For confirmatory diagnosis skin scrapping was procured and processed revealing the presence of microscopic mites belonging to the *Notoedrus* species. The case was successfully managed with Ivermectin @ 200 µg/kg, SC, once a week continuously for four weeks. An uneventful recovery occurred after two weeks of treatment.

**Keywords:** Feline, mange, notoedric, persian cat, ear pinnae

### 1. Introduction

Among domestic pets, dermatological diseases are one of the most prevalent clinical entities and comprise more than 20 percent of the case load at veterinary clinics. Notoedric mange known as feline scabies, is a rare and extremely contagious disease condition of both young and adult cats, caused by burrowing mite *Notoedrus cati* that can contract to other animals, including humans and was first detected by Hering in 1838 (Griffin *et al.*, 1993) [3]. The life cycle and morphology of mites are very similar to those of the sarcoptic mange mite. Mange is easily transmitted via physical contact. The disease is clinically characterized by thickening of the skin, intense pruritis, alopecia and yellow to grey crusts on the head, neck, and ears, which may become generalised if medical intervention is postponed or ignored (Scott *et al.*, 2001) [8]. Zoonotic transmission has been diagnosed in humans who were in prolonged contact with animals that were infested by the mite. Notoedric mange is still very difficult to treat and control because of its contagious nature and zoonotic significance (Itoh *et al.*, 2004) [4]. This case study discusses the successful treatment of notoedric mange in a cat.

### 2. Case history and signalment

A six months old male Persian cat was presented to Veterinary Clinical Complex, College of Veterinary Science and A.H., Jabalpur with a history of severe pruritis and scratching over both the ears for one month. Clinical parameters like rectal temperature of 101.3 °F, heart rate 80 beats/minute and respiration 23 breath/minute were normal. The owner revealed that vaccination and deworming of the animal was done. Further, clinical examination revealed crusts and alopecic lesions on the inner ear margins. The affected skin was devoid of hair and continuous scratching of the affected areas resulted in the skin becoming red, raw and inflamed.

### 3. Diagnosis

For confirmatory diagnosis, deep skin scrapings were procured from the affected areas and cleared in 10% KOH solution. Then, the solution was gently heated with frequent shaking for 5-10 minutes until the debris was completely digested. The solution was centrifuged and supernatant was discarded and a sedimentary drop was transferred to a clean dry glass slide and covered with a coverslip and observed under low power microscope (Soulsby, 1968) [9]. Upon examination of the skin scraping, *Notoedrus cati* mites were identified based on their shape and the presence of a dorsal anus.



**Fig 1:** The affected skin devoid of hair along with raw, inflamed and red ear pinna



**Fig 2:** Crusty, alopecic lesions on the inner margins of ears



**Fig 3:** Microscopic view of *Notoedrus cati*



**Fig 4:** Complete remission of clinical signs after treatment

multivitamins (syrup Catstar® once in a day for 10 days) were also administered along with shampoo containing Benzyl peroxide (Sulbenz pet®). Following treatment, no side effects were observed. By the day 7, the itching had resolved. A significant clinical improvement was observed after 14 days of treatment. Skin scrapings were investigated and found negative two weeks post treatment. As *Notoedres cati* mange is contagious, owners must handle cats affected by the illness with caution and provide prompt and appropriate treatment (Chakrabarti, 1986) [2]. Treatment with Ivermectin @ 200 µg/kg b.wt at weekly intervals is effective against Notoedric mange in cats. Ivermectin works by attaching itself specifically to glutamate-gated and gamma-aminobutyric-acid (GABA) gated chloride channels in mites nervous systems, paralyzing and killing the mites (Aulakh *et al.*, 2003) [1]. The primary indication of antihistamine therapy in Notoedric mange is the treatment of pruritus mediated by histamine activated H1 receptors. In the present study, cat was treated with Ivermectin @ 200 µg/kg, subcutaneously at weekly intervals for a month along with supportive therapy. A successful recovery in the present study confirmed that Feline Scabies could be effectively managed with Ivermectin therapy in cats. This is in accordance with the findings of other workers (Kumar *et al.*, 2008, Kumar *et al.*, 2013 and Ozukum *et al.*, 2019) [5-6, 7].

## 5. References

1. Aulakh GS, Singla LD, Singla N. Pathology and therapy of natural notoedric acariasis in rabbits. *Journal of Veterinary Parasitology*. 2003;17:127-129.
2. Chakrabarti A. Human notoedric scabies from contact with cats infested with *Notoedrus cati*. *International Journal of Dermatology*. 1986;25(10):646-648.
3. Griffin C, Kwochka K, Macdonald. *Current Veterinary Dermatology*. Mosby Publications., USA; c1993.
4. Itoh N, Muraoka N, Aoki M, Itagaki T. Treatment of *Notoedrus cati* infestation in cats with selamectin. *The Veterinary Record*. 2004;154(13):409-409.
5. Kumar AA, Pillai US, Mathew MK, Ajithkumar S. Therapeutic management of notoedric mange in a cat. *Intas Polivet*. 2013;14(2):327-328.
6. Kumar KS, Selvaraj P, Vairamuthu S, Srinivasan SR, Kathiresan D. Ivermectin therapy in the management of notoedric mange in cats. *Tamil Nadu Journal Veterinary and Animal Sciences*. 2008;4:240-241.
7. Ozukum S, Reihii J, Monsang SW. Clinical management of notoedric mange (Feline scabies) in domestic cats: A case report. *The Pharma Innovation*. 2019;8(3):306-308.
8. Scott DW, Miller WH, Griffin CE. *Muller and Kirk's Small Animal Dermatology*, 6<sup>th</sup> Edn., Elsevier's Publishing, Philadelphia. 2001. p. 274-335.
9. Soulsby EJJ. Mites. *In: Helminths Arthropods and Protozoa of Domesticated Animals*, Braillire, Tindall and Cassell, London; c1968. p. 743.

## 4. Treatment and Discussion

The case was managed using Ivermectin @200 µg/kg, subcutaneously once a week for four occasions. For supportive and symptomatic treatment, antihistaminic (Tab Levocetirizine @ 0.2 mg/kg B.wt, once in a day for 7 days),