

Notoedric mange in an American bobtail Tom and its therapeutic management: A case report

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Abstract

Notoedric mange is a highly contagious and rare condition caused by burrowing mites, *Notoedres cati*, primarily affecting cats and has zoonotic importance. A 2.5-year-old male American bobtail cat was presented to the Veterinary Clinical Complex, VCRI, Theni with a history of intense itching for the past 1 month. On clinical examination, dry crusty lesions with scale formation were noticed on the face, ear pinnae, forelimbs and neck region, with all the vital parameters in the normal range. On microscopical examination of skin scraping, multiple numbers of *Notoedres cati* were observed. Tom was treated with inj. Ivermectin @ 0.2mg/kg bodyweight subcutaneously (single dose) and lime sulfur dip (Lotion Demoscanil @ 5ml in 200ml of water) were advised at weekly intervals, along with oral supplementation. Tom showed improvement following the lime sulfur dip on the third treatment and complete recovery was noticed after the fifth treatment.

Keywords: *Notoedres cati*, American bobtail Tom, lime sulfur dip

Introduction

Ectoparasitic infestation of cats causes anemia, allergic dermatitis and non-pruritic skin conditions (Tadesse *et al.*, 2024) ^[10]. The obligatory parasite *Notoedres cati* infestation, known as Notoedrosis or notoedric feline mange, is a rare condition in felines, which can also infest humans and other animals (Foley *et al.*, 2016) ^[2]. Sinha *et al.* (2023) ^[7] and Sivajothi *et al.* (2015) ^[8] also documented the zoonotic significance of *Notoedres cati*. On microscopical examination, the dorsally placed anus, comparably smaller size, unbranched pedicel of *Notoedres cati* helps in differentiating it from *Sarcoptes scabiei* (Bowman *et al.*, 2002) ^[1]. The infestation is manifested by alopecia, pruritus, and crusty lesions predominantly on the head, neck, ears and feet regions (Priyanka *et al.*, 2016 and Kumar *et al.*, 2008) ^[4].

Case History and Observation

A 2.5-year-old American bobtail tom was presented to the Veterinary Clinical Complex, Veterinary College and Research Institute, Theni with a history of intense pruritus for the past 1 month. All the clinical parameters were in the normal range, with normal feeding and voiding behavior. On examination of the integumentary system, dry crusty lesions with scale formation were observed on the face, earpinnae, anterior aspect of the forelimbs and neck region (Fig. 1a & 1b). Skin scraping was performed from the affected area and subjected to 10% KOH treatment (Soulsby, 1968) ^[9]. *Notoedres cati* (Fig. 2) was observed under a low-power microscope with the anus located on the dorsal surface (Walker, 1994) ^[11].

Result and Discussion

Based on clinical and skin-scraping examinations, the case was diagnosed as *Notoederus cati* infestation. The tom was treated with a single dose of Inj. Ivermectin @ 0.2mg/kg bodyweight subcutaneously and lime sulfur dip (Lotion Demoscanil @ 5ml in 200ml of water) were advised as

topically at weekly intervals, along with supplementation of oral syrup containing Omega-3, 6, and 9 fatty acids, biotin, L-Taurine, zinc, and multi vitamins (A, D3, E, B6, B12). Tom showed improvement following the lime sulfur dip on the third treatment and complete recovery was noticed after the fifth treatment. The owner was advised about hygienic measures to prevent zoonotic transmission.

The present case report suggests that a single use of Ivermectin and lime sulfur dip topically at weekly intervals is found to be an effective treatment for feline notoedrosis. The effectiveness of ivermectin therapy in feline notoedrosis is in accordance with the findings of Senthil Kumar *et al.* (2008) ^[6], Priyanka *et al.* (2016) ^[4] and Fular *et al.* (2019) ^[3]. Bowman *et al.* (2002) ^[1] and Salman *et al.* (2023) ^[5] also found lime-sulfur dips (2.5 percent) to be effective when used weekly for 6 to 8 weeks.

In conclusion, the feline mange infestation was effectively managed with a combination of Ivermectin and Lime Sulfur dip.





Fig 1: Dry crusty lesions with scales formation on face and ear pinna



Fig 2: *Notoedrus cati* under low power microscope (Pointer showing the dorsal anus)

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