



E-ISSN: 2320-7078

P-ISSN: 2349-6800

www.entomoljournal.com

JEZS 2020; 8(4): 947-948

© 2020 JEZS

Received: 25-05-2020

Accepted: 27-06-2020

AP Sahla ShaheenaHoo's N Paws Veterinary Clinic,
Naripparamba, Ponnani,
Malappuram, Kerala, India

Combined infection of malasseziosis and demodicosis in golden hamster: A case report

AP Sahla Shaheena

Abstract

A 4 months old male Golden Hamster was presented with alopecia on dorso-lumbosacral area and hind legs with moderate pruritus. Impression smear examination was positive for budding yeast cells and skin scrapings revealed mites identified as *Demodex* sp. Treatment was done with external application of Ketochlor shampoo along with oral supplementation of Immunol syrup. Lesions disappeared and animal recovered uneventfully after 9 weeks of treatment.

Keywords: Golden hamster, budding yeast, demodex, ketochlor

Introduction

Demodectic mites are normal residents of many mammalian species including humans. It is one of the most common ectoparasites recognized in hamsters. Two distinct species of the genus *Demodex*, *D. aurati* and *D. criceti* were isolated from Golden Hamster (Nutting, 1961)^[1]. *Demodex criceti*, a non-pathogenic mite that is a resident of the epidermis, has a short length compared to *Demodex aurati*, which is a pathogenic mite found in the pilosebaceous skin components. Clinical signs in demodicosis include dry scabby, scaly dermatitis, rough hair coat, moderate to severe alopecia accompanied by scaling and erythema (Estes *et al.*, 1971)^[2].

Case history and clinical observations

A 4 months old male Golden Hamster was presented to Hoo's N Paws Veterinary Clinic, Naripparamba, Ponnani with a complaint of anorexia for past 1 week and alopecia on dorso-lumbar area. On physical examination, the animal had rough hair coat. There was alopecia, erythema, pruritus and scaling on the dorsal area of the body. Examination of skin scrapings revealed mites identified as *Demodex* sp. with cigar shape resembling *D. aurati*. Budding yeast cells could be detected in the impression smear.

Treatment and Discussion

From the clinical signs and laboratory findings, the case was diagnosed as Malassezia Dermatitis and concurrent infection with demodicosis. It was treated with Ketochlor shampoo externally weekly twice along with oral supplementation of Immunol syrup at the dose rate of 5 drops daily. Animal started to take feed after 4 days of initial treatment. Shampooing with Ketochlor continued for 9 weeks. The scaly and erythematous lesions disappeared slowly and hair coat returned to normal consistency.

Demodicosis is common in immunosuppressed Hamsters. Immunosuppression, concurrent systemic diseases, malnutrition and age have been reported as the underlying causes that are necessary for the occurrence of demodicosis (Owen and Young, 1973)^[3]. In the present case there was a history of change in the bedding material two weeks before the onset of disease condition. Two species of demodectic manges were identified from hamsters; pathogenic *Demodex aurati* and non-pathogenic *Demodex criceti*. Skin scrapings examination revealed pathogenic one. *Demodex aurati* is 150-200 µm long, has a cigar shape which is a hair follicle inhabitant (Sarashina and Sato, 1986)^[4]. Usually clinical signs include scabby and scaly erythematous dermatitis which is clearly evident in later stages of the infestation. Alopecia is generally seen over the back and rump area (Owen and Young, 1973). In this case also, main lesions and alopecia were noticed in back and rump regions of the animal.

Corresponding Author:**AP Sahla Shaheena**Hoo's N Paws Veterinary Clinic,
Naripparamba, Ponnani,
Malappuram, Kerala, India

A couple of treatment strategies are applicable for the management of demodicosis due to immunosuppression in hamsters. Shampooing with effective ingredients including Ketoconazole and Sulphur is highly suitable with proper nutrient supplementation for skin.

Miticidal agents should be used at low concentrations to avoid adverse side effects. Since the animal was having less than 6 months age and a weight of 700 gm, miticidal agents like ivermectin was not used as a treatment protocol in the present case.



Fig 1: Severe alopecia and hyperaemia on dorso-lumbar area



Fig 2: Alopecia of rump region



Fig 3: Normal hair coat without erythematic lesions after 9 weeks treatment

Conclusion

Demodicosis is often reported in immunosuppressed hamsters with other systemic diseases. In the present case, combined infection of malasseziosis and demodicosis were successfully managed by prolonged application of antifungal shampoo topically and supportive therapy with immunol syrup orally. Demodicosis can be cured without the use of miticidal agents like ivermectin to avoid adverse reactions in less aged animals.

Acknowledgement

I thank Dr. Rasim V P, Chief Veterinary Consultant, Hoo's N Paws Veterinary Clinic, Naripparamba, Ponnani for his continuing guidance and encouragement during the management, diagnosis and treatment of this case.

References

1. Nutting WB. *Demodex aurati* sp. and *Demodex criceti*; ectoparasites of the golden hamster (*Mesocricetus auratus*). Parasitology. 1961; 51:515-522.
2. Estes PC, Richter CB, Franklin JA. Demodectic mange in the golden hamster. Laboratory Animal Science. 1971; 21:825-827.
3. Owen D, Young C. Occurrence of *Demodex aurati* and *Demodex criceti* in the Syrian hamster (*Mesocricetus auratus*) in the United Kingdom. Veterinary Record. 1973; 282-284.
4. Sarashina T, Sato K. Demodicosis in the Golden Hamster. Japanese Journal of Veterinary Science. 1986; 48:619-622