Case Report

Stress Induced Acral Lick Dermatitis in a Domestic Rabbit: A Case Report

Mukesh Srivastava, Anil Ahuja, S. Kachhawaha, N. K Singh, Ankita Sharma, and J. P. Kachhawa

Department of Clinical Veterinary Medicine, CVAS, RAJUVAS, Bikaner, Rajasthan 334001, India

Correspondence should be addressed to Mukesh Srivastava; drmukeshvetmed@rediffmail.com

Received 2 April 2014; Accepted 24 June 2014; Published 9 July 2014

Academic Editor: Paola Roccabianca

Copyright © 2014 Mukesh Srivastava et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

This case report describes acral lick dermatitis in a six-month-old domestic rabbit, which presented with the complaint of excessive licking of the carpus of left forelimb. Clinical examination showed a single well demarcated, oval, alopecic, ulcerated lesion with peripheral hyperpigmentation and thickening at the carpus of left forelimb. Rabbit was successfully managed with oral fluoxetine and topical application of ointment containing fluocinolone acetonide in 0.025% concentration along with intralesional injection of hydrocortisone of 0.15 mL diluted in normal saline at two sites of a lesion at interval of one week. In addition to medical therapy, hard plastic cat ball, some baby toys, and gnawing sticks were kept with rabbit as a method of environmental enrichment with the purpose of mental stimulation.

1. Introduction

In some circumstances, an animal may be motivated to perform two or more patterns of behavior, which are in conflict with each other like approach-withdrawal, greeting but fear of being punished, and so forth. The inability to perform motivated behavior may lead to stress/frustration and thus displacement behavior, which is usually a normal behavior shown at an inappropriate time, appearing out of context for the occasion. Compulsive disorder is usually derived from normal behavior but appears to be abnormal because it is excessive, exceedingly intense, and performed without context and occurs when animal is repeatedly placed in a state of stress or frustration. Some compulsive behaviour is repetitive in nature with any obvious goal and function; it is referred to as stereotypy. Most common problems observed in dogs are aggression, house soiling, and unruly behavior [1]. Separation anxiety is probably the most common anxiety state, and underlying anxieties are often seen in conjunction with aggression-related problems and compulsive disorders [2]. Canine acral lick dermatitis, canine flank sucking, tail chasing, barbering in laboratory mice, avian psychogenic feather picking, and feline psychogenic alopecia are common examples of this disorder in animals [3]. Acral lick dermatitis is excessive, compulsive licking of a focal area on a limb, resulting in a firm, proliferative, ulcerative, alopecic lesion [4]. Lesions are usually single but may be multiple, and they are most often found on the dorsal aspect of the carpus, metacarpus, tarsus, or metatarsus. The causes of the licking are multifactorial, but environmental stress (e.g., boredom, confinement, loneliness, and separation anxiety) may be an important contributor [5]. The most common behavioral problem in rabbit is aggression, which may be due to poor socialization, territoriality, inappropriate handling, inadequate housing, and/or nutritional imbalance [6]. Acral lick dermatitis is well recognized in canine but in rabbit condition with similar signs and etiology is not yet described possibly due to the fact that behaviour displayed by prey species like rabbit is very different from predator species.

2. Case Presentation

A six-month-old rabbit presented to Teaching Veterinary Clinical Complex, CVAS, RAJUVAS, Bikaner, with the complaint of excessive licking of the carpus of left forelimb.
History revealed normal feeding, defecation, urination, and separation of rabbit from his mother as she was suffering from mange. Clinical examination showed a single well demarcated, oval, alopecic, ulcerated lesion with peripheral hyperpigmentation and thickening at the carpus of left forelimb (Figure 1). Surface exudate was absent probably due to continuous licking of lesion. All the vital parameters, behaviour, routine hematology, and skin scraping examinations were unremarkable. On the basis of history and clinical examination the case was diagnosed for acral lick dermatitis due to separation stress. Treatment was initiated with fluoxetine at a dose of 1 mg/kg daily [7] and topical application of ointment containing fluocinolone acetonide in 0.025% concentration. Besides this, intralesional injection of hydrocortisone was given as 0.15 mL diluted in normal saline at two sites of a lesion at interval of one week. Oral syrup of cefpodoxime at a dose of 7.5 mg/kg b.wt. was also given for one week to prevent infection. Along with medical therapy, hard plastic cat ball, some baby toys, and gnawing sticks were kept with rabbit as a method of environmental enrichment with the purpose of mental stimulation [8]. After two weeks of therapy appreciable improvement was noticed, in both appearance of the lesion and licking behavior, after which rabbit was maintained on topical application of fluocinolone ointment.

3. Discussion

Separation anxiety as a psychogenic factor was recorded as a cause of this syndrome, which contributes to the genesis of a vicious itch-lick cycle [4]. Successful patient management is dependent upon integrating physiological, social, and environmental factors which contribute to the clinical manifestation of behavioral dermatoses [9]. Besides, boredom fur chewing may also be a sign of insufficient roughage or protein in the diet. Various abnormal kinds of behavior may be seen in rabbit as a sign of suffering, frustration, fear, or even boredom [10]; these include bar biting, excessive grooming, and nose sliding [11]. These problems can be improved or alleviated with appropriate environmental enrichment [12]. Out of numerous ways of animal environmental enrichment, rabbits tend to be highly motivated to make use of nutritional enrichment [10], as they have great need for gnawing wood, which in seminatural enclosure they satisfy with gnawing roots and branches [13]. Therefore, sticks of soft wood can be used as an effective way to enrich their environment [10].

Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

References

Submit your manuscripts at
http://www.hindawi.com