Case Report

CYTOLOGICAL DIAGNOSIS AND SUCCESSFUL TREATMENT OF INDOLENT ULCER IN A PERSIAN CAT: A CASE REPORT

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ABSTRACT

A one year old, female, Persian cat, weighing about 4kg was presented to Veterinary College Hospital, Hassan with a history of swollen upper lip and presence of ulcers since one week. The cat was not showing any signs of pruritus and was taking food normally. Physical examination revealed swollen upper lip. Impression smear of ulcerative lesion revealed presence of predominant number of eosinophils, ruptured eosinophils leaving naked nuclei, eosinophilic granules in background and infiltration of neutrophils in some areas. Based on history, clinical signs and cytology, the case was diagnosed as eosinophilic ulcer (indolent ulcer). The animal was managed successfully with glucocorticoids and antibiotics.

Keywords: Cytology, feline eosinophilic granuloma complex, indolent ulcer,

Received : 31.12.2024 Revised : 25.04.2025 Accepted : 28.04.2025

INTRODUCTION

Feline eosinophilic granuloma complex is characterized by a group of lesions affecting the skin, mucocutaneous junctions and oral cavity. It is a common inflammatory skin disease in cats. Although the etiology of this condition is unknown, the histological appearance of lesions suggests an immune-mediated mechanism, possibly a hypersensitivity reaction to an unknown antigen (Scott *et al*., 2001). The eosinophilic granuloma complex (EGC) comprises three major forms, eosinophilic or collagenolytic granuloma, eosinophilic or indolent ulcer and eosinophilic plaque (Scott *et al*., 2001 and Foster, 2003). A variety of underlying conditions have been associated with EGC lesions, but many cases remain idiopathic (Scott *et al*., 2001). Indolent ulcer is an ulcerative skin disease that is usually associated with an underlying hypersensitivity. The lesion begins as a small, crater-like ulcer with raised margins that most commonly affects the upper lip. (Hnilica, 2011).

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CASE HISTORY AND CLINICAL OBSERVATIONS:

A one year old, female, Persian cat, weighing about 4kg was presented to Veterinary College Hospital, Hassan with a history of swollen upper lip and presence of lesions on the upper lip since one week. The cat did not show any signs of pruritus and was taking food normally. On physical examination the upper lip was swollen (Fig.1) and animal had ulcers on the upper lip (Fig.2a and 2b). All other vital parameters were in normal range. Animal was not having any other skin lesions and it was free from fleas and flea dirt. Blood sample was collected to rule out systemic infection. Haemato-biochemical findings were within the normal range. Impression smear was taken from the lesion for cytological examination and sample was collected for bacterial and fungal culture. Examination of the impression smear revealed presence of predominant number of eosinophils, ruptured eosinophils leaving naked nuclei, cell debries, eosinophilic granules in background and infiltration of neutrophils in some areas (Fig. 3a and 3b). Bacterial and fungal cultures of the lesions were negative.

TREATMENT AND DISCUSSION

Based on history, clinical signs and cytological examination, the case was diagnosed as indolent ulcer and treated with prednisolone @ 2mg per kg body weight every 24 hours (Phurahong, 2017) for 3 weeks and after 3 weeks it was tapered to 1mg per kg body weight every 24 hours for 2 weeks. To prevent secondary bacterial infection cat was treated with doxycycline at 5mg per kg body weight every 12 hours for 5 weeks. The cat was reviewed at weekly intervals. After one week animal showed slight improvement (Fig.4a and 4b) and after 5 weeks of treatment the ulcerated lesions resolved completely (Fig.5a and 5b).

Indolent ulcer is a common cutaneous, mucocutaneous, and oral mucosal lesion of cats and are well-demarcated unilateral or bilateral ulcers, occurring at the philtrum of the upper lip or adjacent to the upper canine tooth. This lesion has been associated with genetics, flea allergy dermatitis, atopic dermatitis, food adverse reaction, insect reaction, excessive grooming or infectious agents (Power and Ihrke, 1995).

Indolent ulcer is unilateral or bilateral erosive lesion on the upper lip of cat of any age (Young and Moriello, 2006). In this case bilateral ulcers were present on upper lip. The clinical signs observed in the present case are in accordance with the findings of Phurahong (2017) and Gowri *et al*. (2022).

Dunn and Gerber (2005) have earlier reported that large numbers of eosinophils and neutrophils are frequently observed on impression smears of feline eosinophilic granuloma complex. Cytological analysis from the material expressed from the lesion in case of indolent ulcer may

reveal numerous eosinophils. Presence of intracellular bacteria in neutrophils and eosinophils indicates infection (Muller *et al*., 2017). Cytological findings observed in the present case are similar to the findings reported by Moon *et al*. (2017), Phurahong (2017) and Gowri *et al*. (2022).

Treatment of indolent ulcer depends on underlying cause. If none is found the therapy with systemic antibiotic and glucocorticoids are effective (Muller *et al*., 2017). Systemic glucocorticoids may produce rapid reductions in lesion severity and pruritus. To induce remission, prednisolone 2 mg/kg PO every 12 hours should be administered until resolution of lesions. Once lesions have resolved, oral prednisolone therapy should be gradually tapered to the lowest possible alternate-day dose. In this case the cat was treated with prednisolone (Phurahong, 2017) and systemic antibiotics. Animal recovered completely following treatment.

Fig. 1: Swollen upper lip

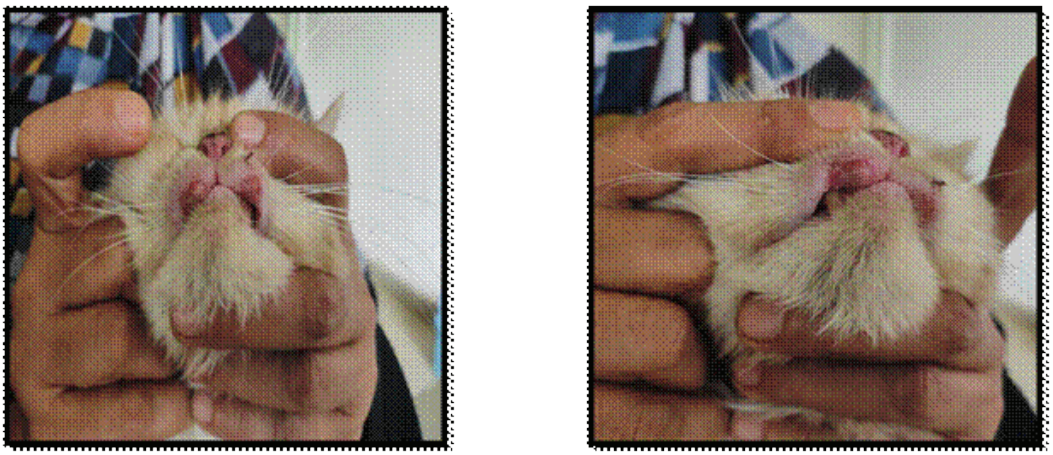

Fig.2a and 2b: Presence of bilateral ulcers on the upper lip

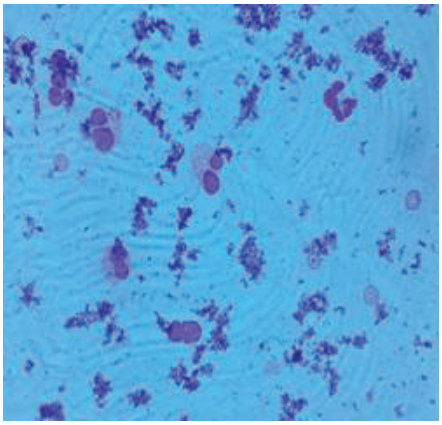
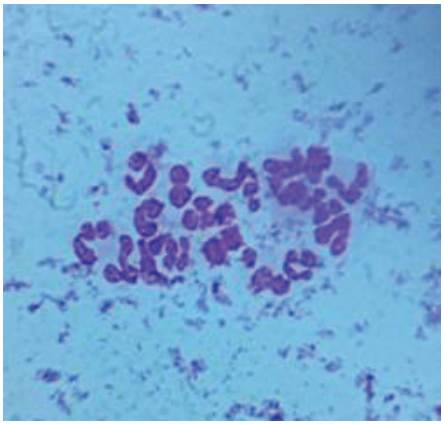

Fig. 3a & 3b: Impression smear from ulcerative lesion stained with giemsa stain - presence of predominant number of eosinophils, ruptured eosinophils leaving naked nuclei, cell debries, eosinophilic granules in background and infiltration of neutrophils in some areas.


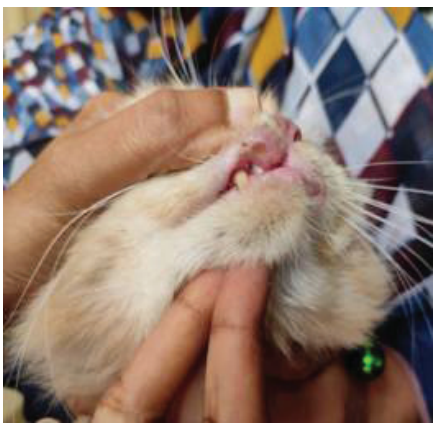

Fig. 4a and 4b: After one week of treatment animal showed slight improvement in condition

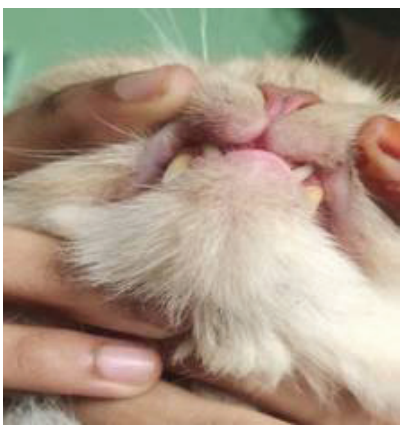


Fig. 5a &5b: Post treatment

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