

# Peripheral vestibular dysfunction and Horner's syndrome secondary to extension of chronic exudative otitis externa in a cat - A case report

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## Abstract

Otitis media and interna are significant causes of peripheral vestibular disease in cats, often accompanied by Horner's syndrome. This case report presents a 4-month-old male long-haired cat diagnosed with peripheral vestibular disease secondary to extension of exudative otitis externa. Clinically apparent signs were exudation from external ear, circling, ataxia and Horner's syndrome. Treatment included a combination of amoxycillin-potassium clavulanate, prednisolone, neuroprotective agents and antibacterial/antifungal ear drops. The cat showed gradual improvement and completely recovered after two weeks of continual therapy.

**Keywords:** Horner's syndrome; Otitis externa; Otitis media and interna

## Introduction

Otitis interna is a common cause of peripheral vestibular dysfunction in cats. This articles presents a case of peripheral vestibular dysfunction and Horner's syndrome secondary to extension of chronic exudative otitis externa in a cat

## Case History and Observation

A 4-month-old intact male long-haired cat was presented to the Referral Veterinary Polyclinic of ICAR-Indian Veterinary Research Institute, Izatnagar (UP), with the history of yellow-brown exudate from the right external ear canal over a period of 2 weeks (Fig.

1) and falling over when walking. Clinical examination revealed suppuration, narrowing of the distal and proximal external ear canal, head tilt (Fig. 2), ataxia and Horner's syndrome (consisting of unilateral ptosis of left eye, miosis of right eye and enophthalmos; Fig. 3). Heart rate (146 beats per minute), respiratory rate (28 per minute) and rectal temperature (99.5 °F) were within the normal range. The cat showed normal pupillary light reflexes and spinal reflexes. Complete blood count and serum biochemistry revealed unremarkable changes. However, middle/inner ear examination and bacterial culture/sensitivity could not be performed due to the owner's refusal for further examination.



**Fig. 1. Brownish exudation from the right ear**



**Fig. 2. Head tilt**



**Fig. 3. Ptosis of left eye and miosis of right eye)**



**Fig. 4. Recovered cat**

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## Treatment and Discussion

Treatment was initiated with amoxycillin-potassium clavulanate (14 mg/kg PO q 12 h), prednisolone (0.5 mg/kg PO q 12 h for first 7 days and q 24 h for next 7 days), ofloxacin-clotrimazole-betamethasone-lignocaine ear drops (10 gtt into affected ear q 12 h) and mecobalamin-vitamins-minerals syrup (5 ml PO q 12 h). Cat showed clinical improvement in Horner's Syndrome in first week and had uneventful recovery by 14<sup>th</sup> day of therapy. (Fig. 4). Otitis interna / media is a common cause of peripheral vestibular disease in dogs and cats. Nelson and Couto (2019) reported that early diagnosis based on a thorough physical examination, neurological assessment and ancillary tests is crucial for treatment.. Bollez *et al.*, (2018) reported that *Pasteurella multocida* was commonly found in these cases. Feline otitis interna / media is often a result of an ascending bacterial infection from the oral cavity via eustachian

tube (Rand, 2006). However, in the present case, as there were clinically apparent signs and a history of chronic otitis externa, it is likely that the route of infection into the middle ear was via the external ear

## References

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