

## STUDY ON EFFECTIVENESS OF SELAMECTIN FOR THE TREATMENT OF *OTODECTUS CYNOTIS* INFECTION IN CATS

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### SUMMARY

*Otodectes cynotis* mites are common cause of otitis externa in case of cats. *Otodectes cynotis* infestation is associated with large amounts of dry, dark brown, waxy debris with variable amounts of inflammation. Six clinically affected cats were randomly considered for the study. Presence of mites was confirmed by microscopic examination of aural debris. All the 6 cats were treated with selamectin spot on (Selamec® 6% w/v) topically and re-examined after 15 days and 30 days of the application. It was found to be safe and effective in the treatment of *O. cynotis* infection.

**Keywords:** Cats, *Otodectes*, Selamectin

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*Otodectes cynotis* mites are non-burrowing, white and very active parasites, responsible for otitis externa in cats and dogs. (Scott *et al.*, 2001). Clinical signs in cats are variable; they can be asymptomatic, or develop intense otic pruritus and otitis externa with brown discharges resembling coffee grounds (Miller *et al.*, 2012). Animals may exhibit self-trauma which can result in aural haematoma. The diagnosis is usually confirmed by visualization of the parasite either directly by otoscopy or indirectly after microscopic examination of collected cerumen. This study was aimed to assess the effectiveness of topical selamectin application for treatment of *O. cynotis* infestation in cats.

The study was conducted in clinical cases that were presented to the Department of Veterinary Medicine, Veterinary College, Hebbal, on six cats (>3 months old) which were showing the clinical symptoms suggestive of ear mite infestation and revealed the presence of *O. cynotis* in the ear swab examination.

Each ear was swabbed with a disposable cotton-tipped ear swabs moistened with mineral oil. The sample was rolled on a microscope slide with the use of mineral oil if necessary and covered with a coverslip. If some cerumen material was left on the cotton-tipped swab a scalpel blade was used to remove it and it was added to the microscope slide.

Cerumen samples were examined microscopically (10 x) directly after sampling and the parasites present were noted. In all cats, numerous live mites were noticed on Day 0. In some of the cats, mite eggs were also observed.

The debris and excess wax present in the ear canal was cleaned gently using salicylic acid ear cleanser

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(Epiotic®). Selamectin spot on (Selamec® 6% w/v) was applied on the skin of the dorsum of the neck and in between the shoulder blades. A drop each was applied to



Fig. 1. Debris present in the external ear canal of the affected cats before treatment (A,C) and the microscopic field showing *O. cynotis* (B, D)



Fig. 2. External ear canal of the cat after treatment showing recovery

the inner surface of both the ears. Re-examination of the ear swab was done after 15 and 30 days of application of the spot on. After 15 days of treatment, the ear swabs were found to be negative for *O. cynotis* mites and their eggs. No adverse drug effects were noticed in any of the animals throughout the study.

The result of this study demonstrated that a single topical administration of selamectin was 100% effective and safe in the treatment of *O. cynotis* in cats without any side effects. The ease of application of the selamectin facilitates the owner compliance with this treatment protocol.

### REFERENCES

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