EFFICACY OF A TOPICAL COMBINATION OF ESAFOXOLANER, EPRINOMECTIN AND PRAZIQUANTEL FOR THE TREATMENT OF *THELAZIA CALLIPAEDA* EYEWORM INFESTATION IN CATS

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The nematode *Thelazia callipaeda* (Spirurida, Thelaziidae) is an ocular parasite affecting a wide range of mammals, including cats, dogs, wildlife and also humans. The adult worm inhabits the conjunctival surface of the definitive host. The indirect parasite life cycle includes the fruit fly as an intermediate vector host and a mammal as the definitive host. The female *T callipaeda* releases a first-stage larva (L1) in the conjunctival secretion, ingested by the feeding fruit fly. The L1 develops into an infective L3 in the fruit fly, which then transmits the L3 to a new vertebrate host while feeding on its secretions.

The clinical picture of feline thelaziosis varies in severity; it can be subclinical but can also cause ocular inflammatory disorders such as conjunctivitis, keratitis, blepharospasm, purulent exudate and corneal ulcers caused by the irritating mechanical effect of the worm.

An increased number of canine and feline thelaziosis cases have been reported in recent years in several European countries, and therapeutic solutions are limited.

A study investigating the curative efficacy against thelaziosis of a topical product containing esafoxolaner, eprinomectin and praziquantel registered for cats (NexGard® Combo) was conducted on naturally infested cats.

Sixteen cats infested with *T callipaeda* were either treated once with the investigated product (n = 8) or left untreated (n = 8) and evaluated 1 and 2 weeks after, for the presence of eyeworms and inflammatory ocular signs. The eyeworms had fully disappeared in all treated cats after 1 week, while all untreated cats still harbored eyeworms after 1 and 2 weeks. The ocular inflammatory signs had fully disappeared in five out of eight treated cats after 2 weeks, while all cats from the untreated groups still displayed inflammatory ocular signs.
This study allowed the demonstration of 100% efficacy ($P < 0.0001$) of one application of the investigated product against natural *T callipaeda* infestation.