

Use of a dental gel (ACTEA<sup>™</sup> ORAL) in the treatment of inflammatory conditions of the oral cavity: pilot study in 10 patients

### RESEARCHER

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# Background

Over 80% of patients seen in a veterinary clinic, both dogs and cats, have oral diseases of varying severity. The first symptom to appear is halitosis, as a result of the emergence of chronic problems related to bacterial overgrowth, such as tartar deposits, gingivitis and stomatitis until the entire oral cavity is affected (periodontitis).

The importance of daily dental hygiene and prevention regime in animals is essential to avoid the emergence of diseases of the oral cavity that can result in more serious systemic clinical problems (infections of the heart, kidney, eyes etc.).

For these reasons it was decided to carry out a pilot study of the effectiveness of a product for topical use in the oral cavity.

The product to be tested **ACTEA<sup>™</sup> ORAL** contains 3 active substances - lactoferricin, GPI lysine and verbascoside - with antibacterial and anti-inflammatory properties.

## **Objective of the study**

The pilot study is aimed primarily at evaluating the clinical response after the application of **ACTEA™ ORAL**, taking into account the reduction of some of the main symptoms associated with oral diseases.

In addition the possible occurrence of side effects following the application was assessed.

The ease of application of **ACTEA™ ORAL** was also evaluated, based on the opinions expressed by owners at the end of the prescribed treatment period.

# **Materials and Methods**

All patients were selected in accordance with *"good clinical practice"* [Gazzetta Ufficiale (Official Gazette) (G.U.) no. 122; 28 May 1998] and subject to informed consent of the owner.

### Selection of the animals

10 subjects were included (7 dogs and 3 cats), regardless of race or gender, between 2 and 14 years of age, suffering from diseases of the oral cavity characterised by the presence of:

- ✓ Halitosis
- ✓ Gingivitis/stomatitis
- ✓ Plaque/tartar
- ✔ Odontoclastic resorptive lesions (only in cats)
- ✓ Pain and difficulty in chewing food

All subjects fell within the following inclusion criteria:

- $\checkmark$  No local or systemic antibiotic treatment in the 15 days preceding the start of the trial
- No local or systemic anti-inflammatory treatment in the 15 days preceding the start of the trial
  Willingness of the owner to carry out the applications according to the protocol suggested by the investigator on the basis of the instructions provided by the manufacturer (1 application every 12 hours through a special nozzle directly onto the gums for 10 consecutive days), as well as carrying out a check at the end of the 10 days of the prescribed application.

### Clinical assessments at: V1 (selection visit), V10 (after 10 days)

Clinical evaluation directed at V1 and V10 of each parameter examined and assigning a lesional scale score for each of them:

<b>0</b> : absent	<b>1</b> : slight	<b>2</b> : moderate	<b>3</b> : serious
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Assessment by the owner at the end of the trial (V10) with regard to the ease of application of the product, palatability of the product, the appearance of any side effects following the application (drooling, vomiting, local adverse reactions). Opinions were expressed using the following scores:

**0**: no effect

**1**: slight effect

**2**: good effect

**3**: excellent effect

## Results

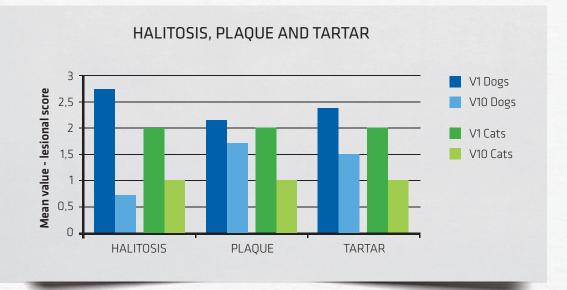
All included animals completed the study. No adverse reactions to the product occurred in any patients and the owners rated the application of the product as easy.

## HALITOSIS, PLAQUE AND TARTAR

#### Remarks

For every parameter assessed, there was a significant reduction in the average lesional score at V10. For halitosis in particular this reduction was **very fast, thanks to the antibacterial action of the product,** with the immediate satisfaction of the owners.

The reduction of the average lesional score after 10 days of application of ACTEA<sup>™</sup> ORAL was respectively from 2.7 to 0.7 for halitosis, from 2.1 to 1.7 for plaque and from 2.4 to 1.5 for tartar in dogs, from 2.0 to 1.0 for all the parameters checked in cats.

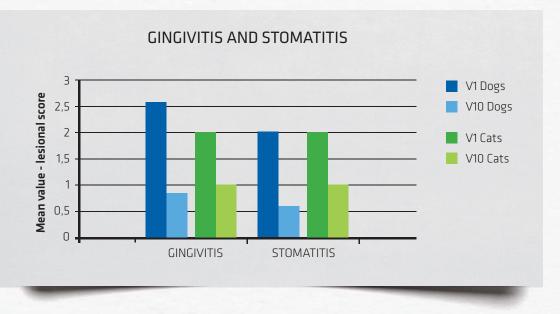


## **GINGIVITIS AND STOMATITIS**

#### Remarks

A significant improvement of both gingivitis (10 cases) and of stomatitis (8 cases) was observed, thanks to the anti-inflammatory action of the product.

The reduction of the average lesional score after 10 days of application of ACTEA<sup>™</sup> ORAL was respectively from 2.7 to 0.85 for gingivitis and from 2.0 to 0.57 for stomatitis in dogs, and from 2.0 to 1.0 for both parameters in cats.



# PAIN AND DIFFICULTY IN CHEWING

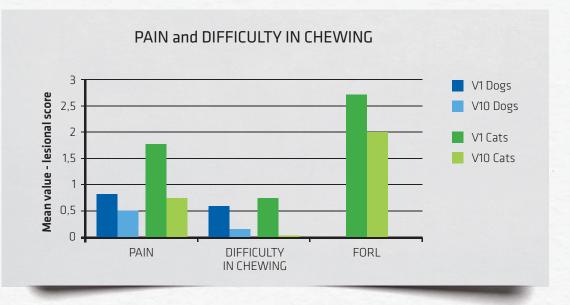
#### Remarks

**Pain** and **difficulty** in chewing were not present in all subjects. Where present, both of these symptoms showed a significant improvement at V10.

The reduction of the average lesional score after 10 days of application of ACTEA<sup>™</sup> ORAL was respectively from 0.86 to 0.50 for pain and from 0.57 to 0.14 for difficulty in chewing in dogs, and from 1.83 to 0.83 for pain and from 0.78 to 0 for difficulty in chewing in cats.

Feline odontoclastic resorptive lesions (FORL) were detected only in 3 patients belonging to the feline species (nos. 8, 9 and 10). In two of these there was a moderate improvement of the lesions, which is still interesting given the short application period of the product and the chronic and progressive nature of the osteoclastic resorptive lesions.

The reduction of the average score with respect to FORL lesions after 10 days of application of ACTEA™ ORAL was from 2.67 to 2.0.



### PRODUCT PALATABILITY AND DEGREE OF OWNER SATISFACTION

### Remarks

**The palatability of the product was excellent** in all subjects and this data is especially important for cats who usually present greater difficulties in the application of any product in the mouth. Thanks to the special packaging of the product **its ease of application was found to be excellent** for dogs and high for cats.



# Conclusions

#### Antibacterial action

Halitosis (the first symptom easily identified even by the owner, is fundamentally related to bacterial fermentation in the mouth) disappeared or decreased significantly over the 10 days of application of the product ACTEA<sup>™</sup> ORAL. The same can be said for **plaque and tartar** parameters.

#### Anti-inflammatory action

The reduction of the parameters associated with **inflammation** (gingivitis and stomatitis) is evidence of good anti-inflammatory action of the product **ACTEA™ ORAL**.

#### Side effects

There was no evidence during the trial of side effects of any kind.

#### Palatability and ease of application

The results were interesting, because the product proved to be **very palatable**, especially for cats, and easy to apply.

The product **ACTEA<sup>™</sup> ORAL**, used regularly and consistently, can be considered a good aid in the treatment of periodontal diseases in dogs and cats.



NEW



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patent pending



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