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Participants in the Study-

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Cypress College 2006

*“Purrrfect Oral
Health... What’s all
the Bark About?”*

**A Clinical Study to
Determine the
Effectiveness of
Maritime Algae on
Canine & Feline Oral
Health**

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Introduction

According to a study by the American Veterinary Dental Society, periodontal disease is the number one illness of canines and felines; 60 – 80% are currently affected. Most owners never look inside their pets mouth and aren't aware of the clinical signs of periodontal disease. Brushing weekly and having professional cleanings yearly are essential to maintain a healthy mouth.

To prevent the progression of periodontal disease and to reduce malodor, a clinical study was completed to determine the effectiveness of a 100% natural product added to the pet's diet.

The problem was to determine if a supplement of maritime algae introduced into the canine diet would reduce malodor, calculus tenacity and plaque on the teeth.

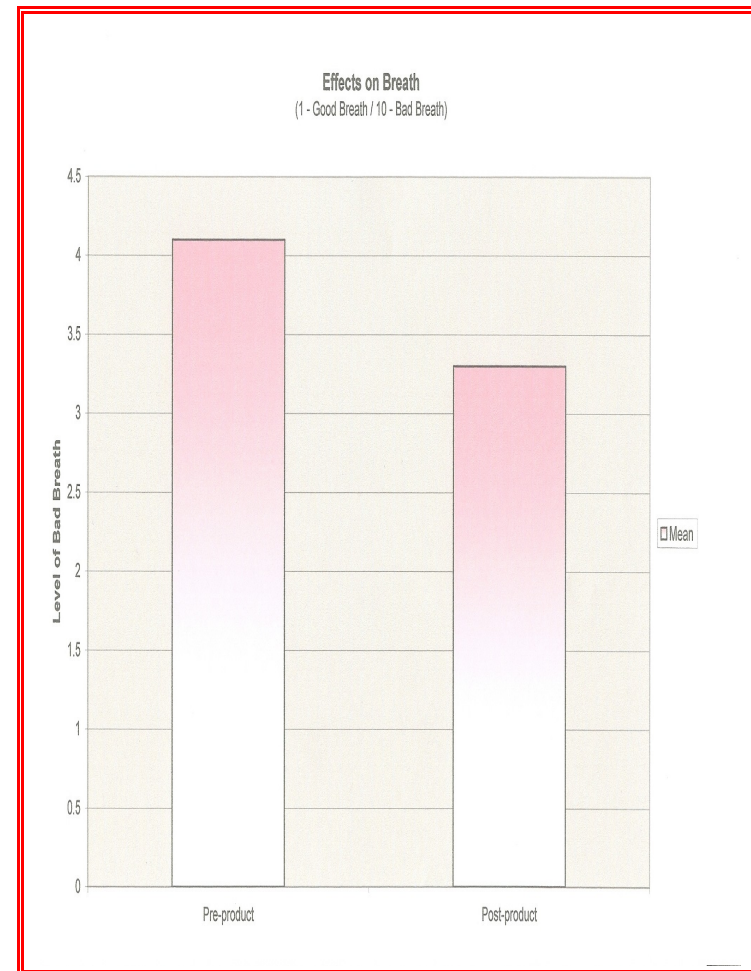
The hypothesis to be accepted or rejected was there would be no improvement in the canine's oral health from the introduction of maritime algae into the pet's diet.

Research of Literature

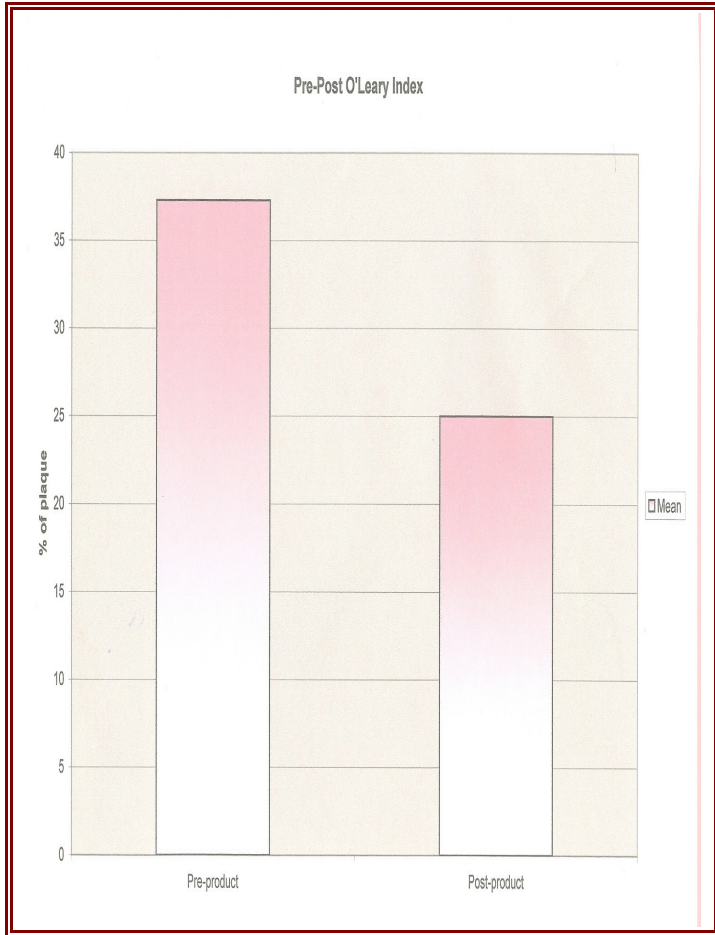
A research of literature determined the active ingredient to be maritime algae, which is a natural vegetable substance harvested in Norway. The organic product works systemically to disrupt the biofilm reducing levels of plaque and calculus within two months. The product claims to be effective against bad breath, tartar and plaque. The improvement of malodor will occur in just a short two weeks. The manufacture claims to decrease deposits by 88% and tartar should disappear completely. If the deposits are not removed, it becomes very porous making it easier to remove by hand. The research study on the product goes on further to say that if calculus is

still present at two months, continue using for an additional two months.

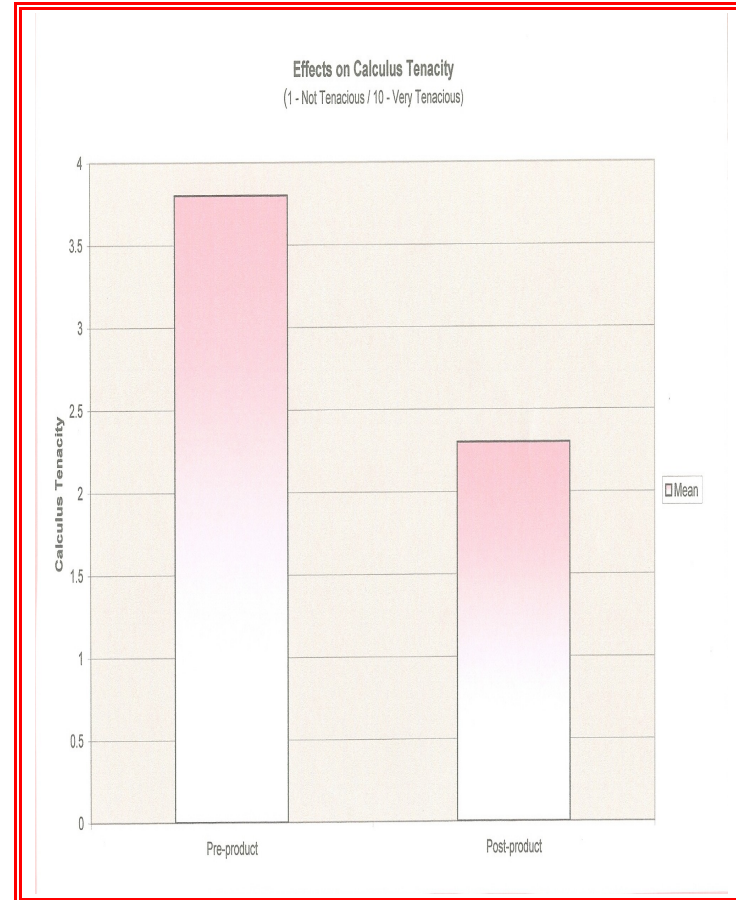
Analysis of Malodor: N=10
t-test = 4.0 with 9 D.F.; showing significant difference
Pearson's $r = .08195$; showing a positive relationship



Analysis of Plaque Indices: N=10
 t-test = 3.1 with 9 D.F.; showing a significant difference
 Pearson's r = .08096; showing a positive relationship



Analysis of Calculus Tenacity: N=10
 t-test = 2.29341 with 9 D.F.; showing significant difference
 Pearson's r = .7611; showing a positive relationship



Clinical Signs of Oral Disease:

bad breath	loose teeth	calculus
pain w/bushing	gum recession	swelling
bleeding	broken teeth	oral growths

Methodology

This experiment was a single-blind study of factorial design. The population was a stratified sample chosen on a volunteer basis. A total of 10 (n=10) canine and feline owners volunteered and completed the study. Selection was based on whether there was visible plaque, calculus or noticeable malodor. The subjects were not to be on antibiotics or have their teeth professionally cleaned for the duration of the study (two months).

Upon signing a consent form, the subject's owner was asked to answer a base line survey and then given concise verbal and written instructions for the experiment. Each participant was given a bottle of the organic product with the label removed.

Instructions stated the following:

1. complete the survey and rank your dogs breath
2. an O'Leary's Index was completed
3. calculus tenacity was recorded
4. owners were to add product to subjects wet or dry food as indicated:
 - Animals up to 25 lbs- ½ scoop daily
 - Animals 25 to 50 lbs-1 scoop daily
 - Animals 50 lbs or more 2 scoops daily
5. If you normally provide dental care for your pet, continue as normal.
6. At completion of the two months study, answer post survey questions and O'Leary's Index to determine your opinion the product and your pets breath.

Storage: room temperature

Note: Initial studies of the product were completed in Sweden using adult human participants. Patent is pending in 135 countries for human usage. No adverse effects were noted.

Interpretation of data

This study was to determine the effectiveness of the organic algae substance on malodor, calculus tenacity and plaque levels. Survey data was converted to graphs and tables for ease of interpretation. This data determined the mean subject age was 5 years old. There were ten participants consisting of 80% dogs and 20% cats.

The analysis of data was completed on Winks computer software. Pearson's r correlation coefficient was determined to be 0.6139. The Pearson-r resulted in a true relationship of all data. A t-test was computed with a probability of $p = 0.05$ and the distribution of it determined that a 2.262 was needed for significance, which supports the significance of the data for the study.

Final analysis of data determined the study results disproved the null hypothesis that there would be not significant reduction of plaque, calculus and malodor. The analysis of data resulted in a significant reduction of all things tested

Conclusion

Upon completion of the study there were improvements in all categories including: plaque levels, calculus tenacity and malodor. All participants were satisfied with the product results. This product would be a great adjunctive therapy to weekly brushing and yearly professional cleanings. Reducing the tenacity of calculus will aid the veterinary hygienist, making your pets vet visit less involved and more comfortable. Maritime algae are a viable consideration for a pet's oral health.