

Comparative palatability of 2 dental chews designed to fight plaque and calculus in dogs: C.E.T.[®] HEXtra[®] and DentaHex[™] Chews

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Conflict of interest: The authors are employees of the company Virbac SA

Introduction

Though tooth-brushing remains the gold standard for at-home daily dental hygiene, giving a dental chew every day can be of interest for dog owners facing compliance issue. To help ensure compliance with a dental chew, the chew must exhibit a high palatability, leading to a spontaneous intake by the dog. Several dental chews designed to fight plaque and calculus are currently available on the market in the USA.



The objective of this study was to determine the palatability of the two following dental chews in dogs: C.E.T.[®] HEXtra[®] Chews (Virbac Corp., USA) and DentaHex[™] Chews (Vetoquinol, USA).

Materials and Methods

The study was conducted in an independent research center located in the USA, in accordance with the Animal Welfare Act and with the "Guide for the Care and Use of Laboratory Animals" (National Research Council). Twenty healthy adult beagle male and female dogs were used in this two-day study. Each day, every dog received the two test chews, offered in two separate bowls with bowl placement reversed daily. At the time of chew offer, first approach and first choice (first consumption) preferences were recorded. The

remaining chews were removed after one hour or after the dog completely finished one chew, whichever came first. Time to complete consumption was recorded for consumed chews.

Quantitative paired data were analysed using a paired t-test or a Wilcoxon signed rank test. Chi Square tests were conducted to determine if there were significant preferences for first approach and first choice.

Results

Based on a Student's t-test for paired data, C.E.T.[®] HEXtra[®] Chews were consumed at a significantly higher rate than DentaHex[™] Chews ($p < 0.001$). According to the Wilcoxon signed rank test for paired data ($p < 0.001$), HEXtra[®] Chews were consumed at a significantly higher rate than DentaHex[™] Chews.

Results of first approach and first choice and total consumption for the two products are presented in figure 1 and figure 2.

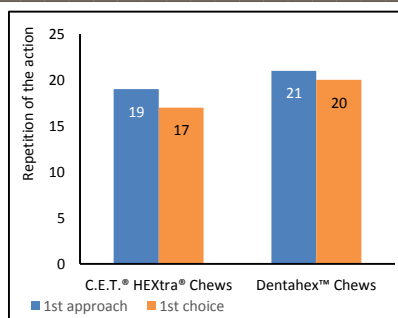


Figure 1: Number of first approach and first choice for HEXtra[®] Chews and DentaHex[™] Chews

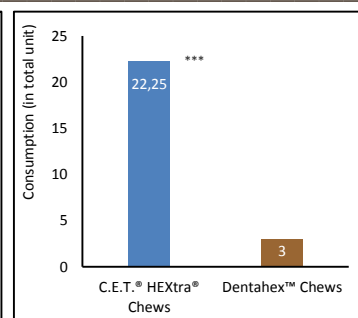


Figure 2: Total consumption of HEXtra[®] Chews and DentaHex[™] Chews in total unit

*** $p < 0.001$ according to Student's t-test and Wilcoxon signed rank test

Discussion and conclusion

This two-day study has shown no significant difference regarding the First Approach and First Choice Preference criteria.

A significantly higher rate of consumption for the C.E.T.[®] HEXtra[®] Chews compared to the DentaHex[™] Chews (88% of overall consumed versus 12%) was observed. These results indicate that the C.E.T.[®] HEXtra[®] Chews are highly palatable in adult dogs and might be more consumed than the DentaHex[™] Chews by dogs.