

## Dentistry 2019: Tolerance and palatability of a dental drinking water additive (Aquadent™ Fresh) containing pomegranate, erythritol and inulin

**Celine S Nicolas**

Virbac Group, France

Aquadent™ Fresh (Virbac) is a water additive for dental hygiene of dogs and cats that can be used daily. Its tolerance was evaluated during 28 days, in 22 beagle dogs and 18 cats, all adults and healthy. 10 dogs and 6 cats were given the recommended dose (1% v/v of drinking water), 8 dogs and 8 cats were given 5 times the recommended dose (5% v/v of drinking water) and 4 dogs and 4 cats had water only, with no product (control groups). Animals were observed daily. A complete clinical examination and body weight measurement was performed once a week. Food and water consumption were measured and feces examination performed daily from Day-14 (or Day-7) to Day 28. Blood samples were taken at the start and at the end of the study for analysis. Water consumption remained similar during the whole study period indicating there was no impact of Aquadent™ Fresh on spontaneous water consumption in both dogs and cats. No product-related clinical signs were observed and rectal temperature remained in the physiological range. No gastro-intestinal disorders were associated to the product administration. Aquadent™ Fresh did not affect body weight, food consumption, hematology or blood biochemistry. The palatability of Aquadent™ Fresh was also tested on 77 owner's dogs and 74 owner's cats during 7 days and compared to the palatability of the Aquadent™ formula containing Chlorhexidine, in a cross-over study, no difference was observed between the two formulas, therefore, Aquadent™ Fresh is safe and palatable for dogs and cats.

Recognizing that there is often inadequate knowledge at both the professional level and the patient-specific level upon which to base our treatment decisions, there is a call for sound clinical investigations to support clinical decision making. The emergence of evidence-based dentistry has significant implications for both the dental treatment planning process for individual patients and the design of parameters for decision making in the profession of dentistry. The importance of evidence-based dentistry is reinforced throughout this book in the What's the Evidence? boxes. Health promotion and disease prevention have become a focus of all the health sciences. Programs and practices put into place to promote these goals should be evidence based and should also include a careful assessment of disease risk and treatment outcomes. An analysis of both disease prognosis and treatment prognosis is also integral to this process.

These three concepts— risk assessment, outcomes assessment, and prognosis determination—will all be defined and described, and their relevance to dental treatment planning will be

discussed. The tolerance of the water additive was evaluated during 28 days, in 22 beagle dogs and 18 cats, all adults and healthy. - 10 dogs and 6 cats were given the recommended dose (1% v/v of drinking water), - 8 dogs and 8 cats were given 5 times the recommended dose (5% v/v of drinking water) - 4 dogs and 4 cats had water only, with no product (control groups). Animals were observed daily during the acclimation phase (D-14 to D-1) and administration phase (D0 to D28). A complete clinical examination and body weight measurement was performed once a week. Food and water consumption were measured and feces examination performed daily from Day-14 (or Day-7) to Day 28. Blood samples were taken at the start and at the end of the study for hematology and blood chemistry parameters analysis (Urea, creatinine, total proteins, albumin, globulin, glucose, K, Cl, Na, ALP, ALAT, ASAT). The palatability of both solutions (with FR3SH™ technology or CHX) was tested on: - 77 owner's dogs - 74 owner's cats during 7 days and compared to each other. All animals were healthy and received the recommended amount of solution (1% v/v of drinking water). The study was designed as a cross-over study: all pets tested all formulas but in a different order depending on group, for 7 days for each formula with a 7-day wash-out period between formulas tested. Water consumption, general acceptability, odor perception and other parameters were scored by owners and compared between formulas.