manually verified for case inclusion and further data extraction on clinical management. Multivariable logistic regression was used for risk factor evaluation.

The study population comprised 210,824 dogs attending 119 clinics. Verification of 31.5% of the candidate cases identified 854 PL cases overall, yielding a 1.30% (95% confidence interval (CI) 1.22-1.39) prevalence overall. Breeds with the highest prevalence included the Pomeranian (6.4%, 95% CI 5.0-8.1), Yorkshire terrier (5.3%, 95% CI 4.8-5.8) and Chihuahua (4.8%, 95% CI 4.2-5.4). The crossbred prevalence was 1.2% (95% CI 1.1-1.3).

Of the 751 incident cases first diagnosed during the study period, 28/751 (3.7%) were referred for further case management. Medical management was used in 293/751 (39.0%). Surgical intervention was recorded in 99/751 (13.2%). The median age at the first recorded surgery was 2.9 years (interquartile range [IQR] 1.5-5.6, range 0.4-13.1).

Multivariable logistic regression analysis identified the

Pomeranian (odds ratio [OR] 6.7, 95% CI 4.1-10.9, $P < 0.001$), Chihuahua (OR 6.0, 95% CI 4.5-8.1, $P < 0.001$) and Yorkshire terrier (OR 5.5, 95% CI 4.3-7.1, $P < 0.001$) at increased odds of a PL diagnosis compared with crossbred dogs. Animals weighing $<$ mean breed bodyweight had 1.4 times the odds (95% CI 1.2-1.6, $P < 0.001$) of PL compared with dogs weighing $\geq$ mean breed bodyweight. Females had 1.2 times the odds (95% CI 1.1-1.4, $P = 0.003$) of PL compared with males. Insured dogs had 1.9 times the odds (95% CI 1.6-2.2, $P < 0.001$) of PL compared with uninsured dogs. Neutered individuals had 2.3 times the odds (95% CI 1.7-3.0, $P < 0.001$) of PL compared with uninsured dogs.

These results identify some breeds with substantial PL prevalence, suggesting an opportunity to reduce the frequency of PL by improved breeding programmes. The proportions of affected dogs receiving medical and surgical management confirm that PL can have substantial welfare as well as financial implications.

Palatability and chewing time evaluation of a vegetable dental chew (VeggieDent®) designed for plaque and tartar control in dogs

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Periodontal disease is one of the most common problems in veterinary practice. It begins with the formation of dental plaque, which then mineralises to form calculus. VeggieDent® is a vegetable dental chew that has proven effective in the mechanical prevention of dental plaque and calculus in dogs. An important point to ensure proper owner compliance is the sufficient palatability of the dental chew. Long chewing times are necessary for the mechanical action required to clear food debris from the oral cavity. The first objective of this study was to assess the palatability of VeggieDent® in dogs. The second objective was to measure chewing times.

Two trials, A and B, were conducted in an independent research centre experienced in palatability trial performance. 38 and 35 healthy adult dogs of various breeds,

both males and females, were included in trial A and B, respectively. In trial A, mean body weight (BW) of dogs was 6.0kg [2.6–7.9] and each dog received one VeggieDent® XSmall. In trial B, dogs received Small, Medium or Large sizes of VeggieDent® if they weighed from 3 to 9.9kg (mean BW=6.4kg), 5.9 to 36kg (mean BW=19.3kg) and 17.8 to 39.5kg (mean BW=31.79kg), respectively. Two criteria were used to assess palatability: prehension and total consumption. Prehension was defined as the act of taking the product spontaneously into the mouth, independently of whether it was then consumed. Total consumption was defined as the act of swallowing more than 95% of the quantity of product offered. Chewing time was defined as the time during which the dog chewed the product.

Prehension was noted in all dogs (38/38, 35/35), regardless of chew size. Total consumption was recorded for most animals, in all sizes (84%, 100%, 73% and 90% for XSmall, Small, Medium and Large sizes, respectively). Chewing times (excluding atypical dogs with an overly long chewing time) were between 4 and 5, 8 and 9, 5 and 6, and 6 and 7 minutes for XSmall, Small, Medium and Large sizes, respectively.

The excellent prehension rate and the high total consumption rate observed in these studies indicate that all sizes of VeggieDent® chews are highly palatable for dogs. The long chewing times measured ensure the sustained mechanical action that makes VeggieDent® chews effective in the prevention of plaque and tartar.

Use of a glass-reinforced hydroxyapatite synthetic bone in small animal clinical cases

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Autologous bone graft remains the gold standard grafting substrate available in bone fusions, for small gaps and in critical defects. Significant morbidity however is associated with the harvesting of autologous bone graft and alternative bone graft substitutes have been developed. In the present work,

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