

ANALYSIS OF CANINE AND FELINE UROLITHS IN THE BENELUX. A RETROSPECTIVE STUDY: 1994 – 2004

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Introduction

Naturally occurring urolithiasis is affected by many risk factors. The aim of this study was to examine the factors influencing the formation of different types of uroliths.

Materials and methods

From 1994 to 2004, Hill's Pet Nutrition received 4495 canine (65 %) and feline (35 %) uroliths from Benelux veterinary practitioners. They were sent to the Minnesota Urolith Center for quantitative and qualitative analysis.

Results

In 1994, 110 uroliths were analysed – 85% from dogs – and in 2003, 1067 uroliths were analysed – 41% from cats and 59% from dogs. During this period, substantial changes were observed in composition. In 1994, uroliths from 17 cats were analysed: 77% of the cats had uroliths composed of struvite, and 12% had uroliths composed of calcium oxalate (CaOx). In 2003, 32% of feline uroliths were composed of struvite, and 61% of CaOx. The same trend was observed in the dogs. In 1994, 51% of canine uroliths were composed of struvite, and 33% of CaOx. In 2003, 40% had struvite uroliths, and 46% had CaOx uroliths. A breed predisposition was noticed: Schnauzer, Bichon and Poodle were at higher risk for developing struvite and CaOx uroliths. Shih Tzu and Yorkshire were at higher risk for developing respectively struvite and CaOx. A significant effect of the gender was observed in the dogs: 71% of the female dogs had uroliths composed of struvite and 60% of the male dogs had uroliths composed of CaOx. A significant effect of the size was noticed in the dogs: 51% of the small breeds had CaOx uroliths and 64% of the giant breeds had struvite uroliths. The mean age of uroliths appearance was 7.3 years in the dogs and 7.2 years in the cats.

Discussion

The findings are similar to those previously published (Osborne et al., 1999). During the last decade, in the Benelux, the occurrence of CaOx uroliths increased as the occurrence of struvite uroliths decreased in both species.

REFERENCE

Osborne et al., Vet Clin North Am : Small Animal Practice, 1999, 29, 17.