INCIDENCE OF BENIGN PROSTATIC HYPERPLASIA IN DOGS

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ABSTRACT

The data obtained for 604 dogs from clinical records (July 2008- August 2009) and screening of 216 clinical cases brought to Madras Veterinary College during the study period (September 2009 to May 2010) were pooled to study the incidence of prostatic affections, age and breed related incidence of Benign Prostatic Hyperplasia (BPH) among dogs.

KEY WORDS: Canines, Prostatic affections, Benign Prostatic Hyperplasia, Incidence

INTRODUCTION

Prostatic diseases occur more frequently in dogs than any other domestic animals. This may relate to the continued expansion of the gland throughout the life of the dog that causes development of prostatic hyperplasia in these species. Such disorders are more common in older intact male dogs and include squamous metaplasia, hyperplasia, inflammation, neoplasia and cysts (Krawiec and Heflin, 1992).

Benign prostatic hyperplasia (BPH) the most common canine prostatic disorder is present either grossly or microscopically in almost 100 per cent of sexually intact male dogs over the age of seven years, as well as in animals treated with androgenic hormones. It arises spontaneously in the gland as a consequence of ageing and endocrine influence and may begin as early as 2-3 years of age, becoming cystic over 4 yrs of age.

The present study reports the incidence of prostatic affections, age and breed related incidence of BPH among dogs.

MATERIALS AND METHODS

Two hundred and sixteen male dogs of different breeds aged > 4 yrs brought to Madras Veterinary College Teaching Hospital (September 2009 to May 2010) with symptoms of dysuria, recurrent urinary tract infection, tenesmus and constipation were screened for BPH. A detailed history was obtained for each clinical case (previous and recent problems, disease and accidents related to the urinary tract) and complete physical examination was performed which included transrectal digital palpation, radiography and ultrasonography. The data from the present study and those obtained for 604 dogs from clinical records (July 2008- August 2009) were pooled to study the incidence of prostatic affections and age and breed related incidence of BPH among dogs.

RESULTS AND DISCUSSION

Of the total 820 male dogs aged more than 4 years brought for treatment for various disease conditions, the incidence of prostatic affections was only 0.05 per cent (42/820), of which 61.9 per cent (26/42) was BPH. However, Krawcic and Heflin (1992) reported that the incidence of BPH in intact male dogs accounted for 6.2

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per cent of all the diseases in intact male dogs > 4 years of age/ younger and 17.5 per cent in those of 10 years or older.

In the present study the incidence of BPH was found to be 26.92 per cent in German Shepherd dogs, 16.67 per cent each in Spitz, Labrador and Doberman; 2.38 per cent each in Lhasa Apso and Dachshund and 11.9 per cent in Non-descript. The findings of the present study were in accordance with the findings of Kraweic and Heflin (1992) who also reported that medium and large sized breeds were more prone to development of prostate diseases with the Doberman Pinscher and German Shepherd appearing to be more frequently affected than other breeds. Similarly, Kutzler and Yeager (2005) reported that prostatic size correlated with body weight and age, as well as breed. Doberman pinscher and German Shepherd were the breeds most commonly represented in a review of 177 cases of prostatic diseases. However, several authors have reported that there was no breed predisposition and virtually all non-neutered males > 7 years of age were affected by BPH with the process initiated between sexual maturity and 4 years (Derklerk *et al.*, 1979; Kreweic and Hefflin, 1992 and Leav *et al.*, 2001).

Studies on age related incidence of BPH in the present study showed that the incidence was higher in dogs more than 8 years of age (42%) than in 6-8 years (39%) and 4-6 years (19%). The development of BPH was dependent on age related alterations in testosterone and estrogen ratios with the increasing estrogen concentrations regulating the expansion of androgen receptors on prostatic cells thus explaining the reason for a higher incidence of BPH among older dogs (Leav *et al.*, 2001).

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