PREVALENCE AND INFLUENCE OF AGE AND BREED ON PROSTATIC DISEASES IN DOGS

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ABSTRACT

A study was conducted to screen the prevalence of prostatic diseases in intact male dogs over the age of five years and effect of age and breed on the incidence of the disease. An overall incidence of 1.34 percent was recorded in the present study. Dobermann (8.1%), GSD (3.31%) and Non- descript/Mongrel dogs (1.98%) were the only three breeds affected by the disease among the screened dogs. Average age of the affected animals was 8.70±0.76 years with a range of 5-13 years.

Key words: Dog, Prostate, Prevalence, Age, Breed

The prostate gland is the only accessory gland in dogs and its secretions account for 97% of the ejaculate. It is supportive in function and it aids in passage of spermatozoa into the uterus of the bitch and provides certain factors for their survival and nourishment. The prostate is under the influence of the hormone testosterone throughout its life and tends to increase in size with progressive advancement of age (Berry *et al.*, 1986). Some breeds of dogs are said to be predisposed to prostatic diseases (Kraweik and Heflin, 1992). The present study investigates the prevalence and the effect of various risk factors on manifestation of prostatic diseases in dogs.

The data pertaining to the present investigation were generated following screening of intact male dogs aged over five years which were presented to the outpatient Department of Clinical Medicine, Veterinary College Hospital, Hebbal, Bangalore during the period between November 1st 2007 and April 30th 2008. Male dogs which are exhibiting one or the other clinical sign like gait abnormalities, constipation, dysuria, and hemorrhagic/ purulent urethral discharges, suggestive of prostatic diseases were segregated and detailed investigations like ultrasonography and prostatic fluid cytology were carried out to confirm the presence of prostatic disease.

During the period of this study, the number of male dogs which were over five years of age presented to the outpatient Department of Clinical Medicine, Veterinary Hospital, Hebbal, Bangalore was 1120. Among these, 307 (27.41%) dogs belonging to 22 different breeds had one or more signs suggestive of prostatic disorder. However, further detailed clinical investigations like digital rectal examination, ultrasonography and prostatic fluid evaluation indicated that only 15 of the 307 animals were ailing with one or the other prostatic diseases. This was 1.34% of the total number of male dogs screened.

Prostatic disease was confirmed in 15 dogs, which belonged to only three breeds namely Dobermann, German Shepherd Dog and Non Descript breeds. The highest incidence of 8.1% was recorded in Dobermann. The incidence in GSD and Non Descript breeds were 3.31 and 1.98% respectively. The average age of dogs confirmed to be suffering from prostatic disease was 8.70±0.76 years (Range: 5-13 years). The average age of Dobermann's in which a clinical diagnosis of prostatic disease was confirmed was 8.00±2.52 years and ranged between 5-13 years. In German shepherds, prostatic disease was confirmed at a mean age of 8.21±0.75 years (Range 6-11 years). The mean age of non descript dogs suffering from prostatic disease was 9.80±0.66 years (Range: 8-12 years).

The overall incidence of prostatic diseases indicated in the present study (1.34%) is in accordance with the studies conducted by Teske *et al.*, (2002) who reported incidences of 2.5% and 1.46% respectively. Reports by Dhabi *et al.*, (2005) and Tepla *et al.*, (2005) quote the incidence of prostatic disease as 10.71% and 8%, cannot be considered apt since the sample size in these studies are either low or unknown unlike the previous author's who screened a large number of animals. Even though histopathological studies (Amorim *et al.*, 2004) report a high incidence (81.3%) in five to

15 year old dogs, clinical studies rely only on cases where symptoms associated with the condition are present and hence derive a lower incidence value as substantiated by various studies conducted by different authors.

Results of the present study appear to suggest that Dobermann, GSD and Non Descript breeds are at an increased risk of developing prostatic diseases. The incidence of 8.1% of prostatic disease amongst Dobermann and 3.31% amongst GSD breed agrees closely with the reports of Kraweik & Heflin (1992) who reported that Dobermann and GSD are at an increased risk of developing the disease (9% and 5.6% respectively).

Prostatic diseases appear to have an onset at a mean age of around 8 years irrespective of the breed, although it was encountered as early as 5 years in one animal. Age of diseased animals in the present study among Dobermann, GSD and mongrels ranged from 5-13 years. Reports of the age of the animal with reference to a particular breed with regard to the onset of prostatic diseases have not been published. The average age at diagnosis of prostatic diseases in dogs over five years observed in the present study was 8.70±0.76 years which closely relates to the reported age of 8.4 years (Teske *et al.*, 2002). The results of this study emphasize the fact that the onset of the disease is seen more in aged dogs above eight years of age. This characteristic has been previously reported by Smith (2008), who described a higher incidence in older, sexually intact male dogs. The fact that maximum incidence of the disease is seen in dogs aged more than 5 years (Kutzler and Yeager, 2005), 6 years (Lowseth *et al.*, 1990) has been substantiated by this study.

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