B-Mode and Doppler Ultrasonographic Evaluation of Prostatic Disorders in Dogs – A Retrospective Study

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Abstract
The present study was aimed to evaluate the prostatic disorders based on sonographic findings in intact male dogs. Nineteen dogs of different breeds were identified ultrasonographically with various prostate abnormalities with overall incidence of 3.90% (19/487). Prevalence of various prostatic condition were prostatic abscess (26.31%), prostate hyperplasia (42.10%), prostatic cyst (21.05%) and paraprostatic cyst (10.52%). Average age of affected dogs with prostate abscess, hyperplasia, cyst and paraprostate cyst were 5.9, 8.75, 3.5 and 1.75 years respectively. Major clinical signs noticed were dysuria, constipation, discharge from penis and hematuria.

Key words: Prostate, ultrasonography, dysuria.

Prostate is a bilobed, accessory sex gland which completely surrounds the proximal portion of urethra in male dogs. Functions of the prostate depends on androgens, contributes 90-95% of volume to the ejaculate in addition to its antibacterial property which protects sperm and lowers genital infections in females (Onclin et al., 1994). Due to absence of specific sings in both clinical and subclinical prostatic enlargement, infection and neoplasia in dogs remains a challenge to the clinician to make a definite diagnosis.

Materials and Methods
Canine cases referred to the ultrasonographic unit during the period of September 2016 to February 2017 were considered as a case material for the present study. All the cases in the study were subjected to complete clinical examination, hematology, serum biochemistry and urinalysis. Plain radiographs and B-mode ultrasonography were performed to identify the lesions in the prostate.

Results and Discussion
Nineteen dogs of different breeds were identified ultrasonographically with various prostate abnormalities with overall incidence of 3.90% (19/487). Various prostatic abnormalities recorded were prostatic abscess 26.31% (5/19), prostate hyperplasia 42.10% (8/19), prostatic cyst 21.0% (4/19) and paraprostatic cyst 10.5% (2/19). Average age of affected dogs with prostate abscess, hyperplasia, cyst and paraprostate cyst were 5.9, 8.75, 3.5 and 1.75 years respectively. Dysuria and constipation were predominant signs in patients with prostatic hyperplasia and paraprostatic cysts, excessive discharges and hematuria were noticed in prostatic abscess. Hematologic revealed mild neutrophilia, anemia and leukocytosis, where as serum biochemistry showed insignificant changes. Plain radiographic findings revealed prostatic enlargement in 42.10% of cases.

B mode ultrasound examination findings observed were nodular hyperplasia with significant enlargement of the gland was the consistent sign in the prostate hyperplasia (8/19) and remained as most common prostatic disorder in dogs (Korodi et al., 2008). Prostatic cyst (4/19) and prostatic abscess (5/19) showed characteristic anechoic intraparenchymal lesions within the gland. Paraprostatic cyst showed anechoic pouches adjacent to the prostate and bladder. Similar ultrasonographic evaluation findings were observed by Feeney et al., (1985) who also stated that ultrasonography is the most sensitive tool for making diagnosis of prostatic disorders.

References

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