

A Case Report on Management of Canine Prostatic Abscess

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Abstract:

An eight-year-old intact male Labrador dog was presented to TVCC, Bihar Veterinary College, BASU, Patna with a complaint of haematuria for four days. It had a preputial swelling for the last two months and dribbling of urine developed recently. Clinical examination revealed normal body temperature (101.3 F), difficulty in walking, and a distended abdomen. Two large anechoic pockets with hyperechoic margins were detected ultrasonographically caudal to the distended urinary bladder. The hematology showed leukocytosis with neutrophilia. USG-guided aspirated fluid was sent for cytopathology in which mixed bacterial population, inflammatory cells mainly neutrophils and pus cells were found. This confirmed it to be a case of prostatic abscess. Remission of the condition was achieved by USG-guided drainage of purulent fluid, enrofloxacin @ 5 mg/kg b.wt. IM twice daily for the first 3 days, followed by levofloxacin @ 5mg/kg b. wt. P.O. for 21 days, trypsin-chymotrypsin 1lac AU/ day P.O. for 5 days, and syrup heparin^R 2 tsp daily. Further, castration was advised to prevent a recurrence.

Key words : Dog, prostatic abscess, enrofloxacin, levofloxacin, ultrasonography, trypsin-chymotrypsin

Introduction:

Prostatic diseases are common in aged intact male dogs. Purulent discharge in the parenchyma of the prostate, often caused due to a medical complication of acute prostatitis is termed prostatic abscess (Khadidja and Adel, 2017). The most common route of infection of the prostate is bacterial reflux from the urinary bladder or ascending infection from the urethra albeit it can also be hematogenous (Bowles, 2010). Castration is recommended to complement the medical management of prostatitis, as the infection is controlled quicker in castrated compared to intact males (Smith, 2008).

Case history and diagnostic workup:

The presenting case of an intact male Labrador, aged eight years, weighing 32 kgs was suffering from hematuria for four days. According to the owner it had preputial swelling (balanitis) for the last two months and now also showing dribbling of urine. On clinical examination body temperature was 101°F, the abdomen was slightly distended and the animal revealed difficulty in walking. Trans-rectal digital examination evinced painful enlarged prostate. Further ultrasonography was performed with the animal in dorsal recumbency. Three large anechoic cavitations with flocculent appearance and hyperechoic margins were found in the ventral pelvic region. The cranial one was confirmed to be the urinary bladder by catheterization through the urethra to flush

normal saline in the bladder that was monitored ultrasonographically. And the other two cavitations located caudal to the urinary bladder were within the prostate. The USG-guided aspirated cavity fluid was sent for cytopathology to the Department of Veterinary Pathology. The Giemsa stained smear of the fluid was packed with the mixed bacterial population mostly comprising of *Diplococci* and *Streptococci spp.*, inflammatory cells mainly neutrophils, and pus cells.

Complete blood count elicited leukocytosis (20,000/cu mm) with neutrophilia (84%) and mild anemia with hemoglobin 11g/dL. All these findings confirmed it to be a case of prostatic abscess.

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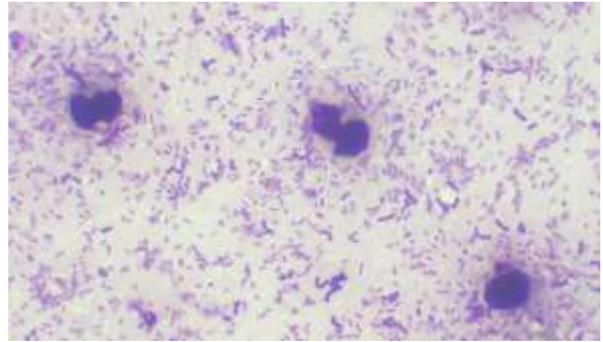
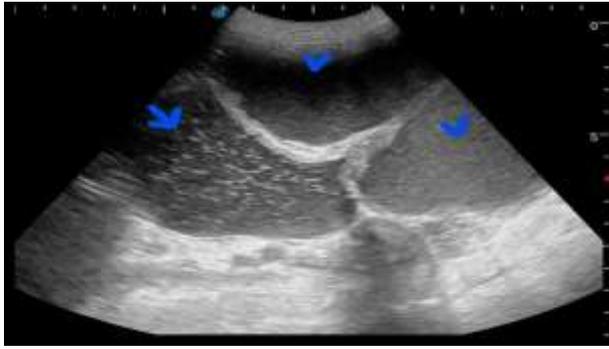


Fig 1: ultrasonographic view of the urinary bladder (arrow) and anechoic pockets within the prostate (arrowhead).

Fig 2: microscopic view of prostatic fluid showing mixed bacterial population and neutrophils

Treatment:

USG-guided drainage of the abscess was done with the help of 18 gauge-sterilized needle and a 20ml syringe. Prior to puncturing the site was scrubbed with betadine. About 200 ml of purulent fluid was removed on the first day. Three consecutive drainages were performed at an interval of 3 days.

The dog was kept on enrofloxacin @5mg/kg IM twice daily for the first 3 days followed by levofloxacin @ 5 mg/kg orally for the next 21 days. Trypsin - chymotrypsin 1 lac AU/day was given orally for initial 5 days. There are multiple roles of oral trypsin-chymotrypsin in tissue repair acting as an anti-inflammatory, anti-edematous, fibrinolytic, and anti-infective agent (Shah and Mital, 2017). Liver support, hepamust^R 2 tsp orally daily was supplemented for 21 days. The symptoms started to regress after 3 days and disappeared completely within two weeks of treatment. To prevent the recurrence of the condition the owner was suggested to opt for castration once the dog becomes stable.

Discussion:

A prostatic abscess is a rare disease of prostate and is often a complication of an infected cyst or severe prostatitis (Lévy et al. 2014). As reported by Lowseth et al. (1990) clinical signs of prostatic abscess are anorexia, fever, depression, gait abnormalities, tenesmus, dysuria, and caudal abdominal pain. The clinical signs often vary depending on the size of the abscess and whether the infection became systemic or not (Smith,2008). Ultrasonography is the method of choice to investigate the prostate for the size of the gland and the parenchymatous homogeneity (Günzel-Apel et al. 2001). As was seen in this case, ultrasound-guided percutaneous drainage is an effective treatment for some dogs with prostatic abscesses and cysts (Boland et al 2003).

Different prostatic diseases cannot be distinguished solely on the bases of clinical signs, as these may be similar for many prostatic conditions. Opting for the appropriate diagnostic modalities in each of the possible conditions is vital for making a correct diagnosis and undertaking proper treatment (Lévy et al. 2014).

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