Intas Polivet (2019) Vol. 20 (I): 154-156 *Short Communication*

Diagnosis and Surgical Management of Prostatic Abscess in a Dog

S. Dharmaceelan[1], K. Jeyaraja, D. Vishnugurubaran and M. Bharathidasan
Department of Veterinary Surgery and Radiology
Veterinary College and Research Institute
Tamil Nadu Veterinary and Animal Sciences University (TANUVAS)
Tirunelveli - 627358 (Tamil Nadu)

Abstract

A intact male Rottweiler was presented with inappetence and pus discharge from penis. Ultrasonography revealed prostatic abscess and renal changes consistent with acute renal injury. Ultrasound guided percutaneous aspiration of prostatic abscess had greenish white and foul smelling pus aspirated. After a few weeks of medical management, it was decided to perform surgical drainage of prostatic abscess. Under general anaesthesia, prostate was exteriorized and abscess was drained. The cavity was flushed and omentalization was performed as per the standard procedure. The dog was maintained with parenteral Enrofloxacin and followed up with oral Cefixime and Ofloxacin. The animal recovered after twelve days.

Keywords: Dog; omentalization; prostatic abscess; prostate; prostatitis

Introduction

The canine prostate gland can be affected by several disease processes which often have overlapping clinical signs, making it difficult to confirm diagnosis. Accurate diagnosis of prostatic disease requires thorough understanding of prostatic anatomy, as well as associated clinical signs. Prostatic abscesses develop either after fusion of small areas of infection within the gland or after infection of prostatic cysts (Baker and Lumsden, 1999). They can also develop as a result of bacterial contamination spreading from another part of urinary tract by hematogenous route, from cysts that become secondarily infected or as sequel to chronic prostatitis, where cavities of purulent fluid are found within parenchyma of prostate (Sindhu, 2014).

History and Clinical Observations

A seven year old intact male Rottweiler weighing 34 kg was presented with history of inappetence and pus discharge from penis. Urination was not normal and mild limb edema was observed in both hind limbs with enlargement of popliteal. Electro cardiograph revealed low voltage QRS complex. Radiological examination revealed prostatic enlargement. Hematological and biochemical investigations revealed mild anemia and moderate leukocytosis (Hb-9.9 g/dl, PCV-26.0%, RBC-4.54m/cmm, WBC-22400/cmm), mild azotaemia (BUN-63.99 mg/dL, creatinine-3.3 mg mg/dL) and hypoalbuminemia (albumin-1.9 g/dL). On digital rectal palpation, prostate gland was asymmetrically enlarged. Ultrasonography examination revealed distended prostate with hyperechoeic to echoic contents (Fig. 1). Percutaneous aspiration of prostate was performed and thick greenish foul smelling pus of about 110 ml was aspirated and sent for isolation and culture studies.

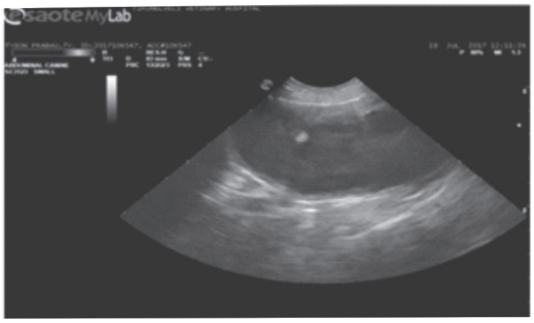

Fig. 1: Distended prostate with hyper-echoic to echoic contents

Treatment

The dog was treated with injectable Enrofloxacin (5mg/kg), Mannitol (0.25 g/kg), Frusemide (2mg/kg) and Ringer's lactate. Oral Rubenal[a] (300- one tablet twice daily) and hematinics (Syrup a RBC[a]), 5 ml twice daily) were followed. The case was followed up with antibiotics and supportive therapy for four weeks. On subsequent review, re-accumulation of pus in prostate with improvement in renal parameters

1. Corresponding author.
E-mail: dharmaceelan@gmail.com

a - Brand of Vetoquinol India Animal Health Pvt. Ltd.

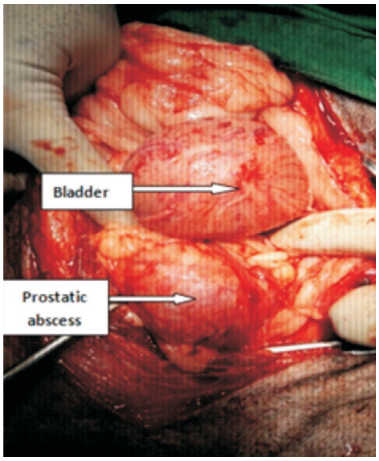

Fig. 2: Prostatic abscess

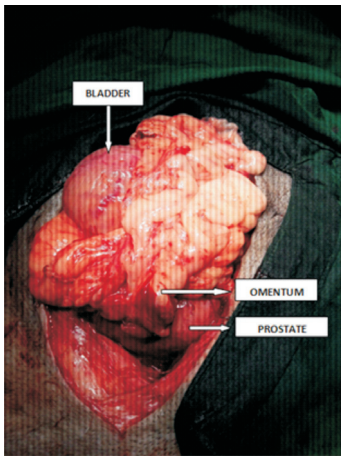

Fig. 3: Omentalization

was observed. It was decided to perform surgical drainage of prostatic abscess. Under general anaesthesia with Butorphanol (0.1 mg/kg), Xylazine (1mg/kg) and Ketamine (5mg/kg) combination for induction and Isoflurane maintenance, abdomen was entered by caudal mid ventral approach. The bladder was exteriorized and by blunt and sharp dissection through the periprostatic fat along ventral midline, prostate was exposed and abscess was identified (Fig. 2). A stab incision was made and using suction the abscess contents were drained. The cavity was thoroughly flushed more than thrice with normal saline. Omentalization was performed by making a 1-2 cm incision on ventrolateral aspect of prostate on each side. Using a hemostat, bluntly probed through the entire parenchyma on each side to open any smaller abscess cavities. A portion of omentum was grasped and drawn through the prostate gland. Using forceps, introduced the omental pedicle back through prostate, dorsal to urethra and both ends of omentum was sutured using 2-0 monofilament absorbable suture material (Fig. 3). The laparotomy wound was closed as per standard surgical protocol. The castration was also undertaken on same day. The dog was maintained with injectable Enrofloxacin and followed up with oral Cefixime and Ofloxacin. The animal recovered after twelve days.

Discussion

Suppurative prostatitis occurs when bacteria colonize the prostatic parenchyma and develops into micro abscess (Slatter, 2003). Inflammation of prostate gland is second most common prostatic disorder in dogs. More than 38 percent of dogs identified with prostatic disease are because of bacterial prostatitis and mean age of affected dogs was 8.2 years (Ling *et al*., 1983). The present case was of an intact male of seven years age. Abscess was confirmed by presence of *Escherichia coli,* most frequently found pathogen so far. But *Staphylococcus aureus*, Klebsiella *spp*., *Proteus mirabilis*, *Mycoplasma canis, Pseudomonas aeruginosa,* Enterobacter *spp.,* Streptococcus *spp.,* Pasteurella *spp*. and Haemophillus *spp*. could also be found (Paclikova *et al*., 2006). Renal failure was evident secondary to severe prostatitis which complicated the condition further (Jayathangaraj *et al*., 1993). The biochemical values become near normal during post-operative therapy. In past, numerous techniques have been advocated in surgical treatment of prostatitis, prostatic abscesses and prostatic cysts. Partial or complete prostatectomy, marsupialisation or debridement and drainage have all been advocated, unfortunately all of these techniques are associated with complications such as incontinence, cyst or abscess recurrence, etc. More recently, prostatic omentalization has been described. In this procedure, after opening and draining any cystic cavities or abscesses within the prostate, a portion of omentum is passed through the prostate by blunt dissection. This improves the vascular supply to affected tissue and prevents re-formation of closed cystic/abscess cavity. It is very

effective in preventing disease recurrence. With this procedure, post-operative persistent urinary incontinence is very uncommon as opposed to prostatectomy which causes incontinence in almost all cases and partial prostatectomy which carries a significant risk of incontinence. In present case, pus discharge contained day by day and animal recovered after twelve days.

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Workshop for Field Vets on Repeat Breeding Syndrome

One day workshop on 'Management of Repeat breeding syndrome for augmenting the fertility in dairy animals' was organised at College of Veterinary and Animal Sciences, Maharashtra Animal and Fishery Sciences University (MAFSU), Udgir, Maharashtra on 11th June' 2019. Around 150 Veterinarians attended the workshop including field Veterinarians from six districts of Maharashtra. Dr. A.D. Patil, Assistant Professor, Department of Animal Reproduction, Gynaecology and Obstetrics, C.V.Sc, MAFSU, Udgir was the Organising secretary of event along with Dr. R.D. Suryawanshi and Dr. N.Z. Gaikwad and other college faculties.

The workshop had technical deliberations on repeat breeding in bovines from Dr. N.M. Markendeya; Dr. A.D. Patil; Dr. W.A.A. Razzaque, Dr. Nitin Bhatia and Dr. B.G.Hol. The inaugural session was presided by Dr. R.R. Mugale, Associate Dean, C.V.Sc, MAFSU, Udgir; Dr. A.U. Bhikane along with other technocrats and Dr. N.M. Markendeya, Associate Dean, C.V.Sc, MAFSU, Parbhani. Dr. N.M. Markendeya is a renowned Veterinary Gynaecologist and editorial board member of Intas Polivet. During the inaugural session a training manual for the workshop was also released by the dignitaries. Intas Animal Health was an active participant and collaborator for the workshop along with others.

Training manual released


Dr. Markendeya during the deliberations