

**CYSTO-PROSTATOCELE DUE TO PROSTATIC ABSCESS IN A DOG**

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Perineal hernia is a most common surgical condition encountered in intact male dogs when the perineal muscle ruptures allowing rectum, pelvis and or abdominal contents to displace underneath perineal skin. Herniation may be unilateral or bilateral which contains pelvic or retroperitoneal fat, serous fluid, a deviated or dilated rectum, a rectal diverticulum, prostate, urinary bladder or small intestine. Perineal hernia due to retro flexion of urinary bladder is an emergency condition which warrants immediate surgical interventions.

A case of left unilateral perineal hernia due to prostatitis leading to retro flexion of urinary bladder along with prostatic abscess is reported.

**CASE HISTORY**

An eight year old intact male German shepherd dog was presented to Small Animal Surgery Out Patient unit of Madras Veterinary College Teaching Hospital Chennai, with swelling on the left side of perineal region, anorexia, stranguria, tenesmus and inability to pass urine and stools for past three days. Clinical examination revealed a soft swelling on the left side of anus with deviation of anal opening to right side. On rectal examination the rectum was normal but deviated to the right side. The bladder was catheterized immediately to relieve pressure in the bladder and the radiological diagnosis by positive contrast technique (retroflexion of iohexol @ 6ml/kg) confirmed bladder herniation. Hematological parameters were normal except that of leucocytosis with neutrophilia shift to the left. Bio-chemical parameters were normal. The animal was stabilized with fluids (dextrose 5%) and subjected to hernial repair.

**SURGICAL PROCEDURE**

The dog was premedicated with Atropine and Xylazine @ 0.02 mg/kg b.wt and 1 mg/kg b.wt intramuscularly respectively. General anesthesia was induced with Ketamine and Diazepam @ 5 mg/kg b.wt and 0.5 mg/kg b.wt intravenously respectively. The surgical site was aseptically prepared and positioned in sternal recumbency with tail fixed over the back and the pelvis elevated. A curvilinear incision on left side beginning cranial to the coccygeal muscle curving over the hernial bulge lateral to anus, extends ventral to pelvic floor was made. The adhesions were separated and the urinary bladder with prostate was noticed (Fig 1). Enlarged Prostate, when attempted for fine needle aspiration biopsy revealed pus. It was subjected to cytological examination. The bladder was reduced and the hernial defect was closed with pre placed simple interrupted suture using No.0 prolene, a non absorbable suture material, between external anal sphincter and levator ani and coccygeus muscle in the dorsum and internal obturator muscle on ventral aspect. The subcutaneous sutures were applied and the skin edged was closed in cruciate pattern with silk thread (Fossum, 1997).

The cytological examination of prostatic fluid revealed inflammatory cells with bacterial colonies of *E.coli* which was a confirmative indication for prostatic abscess. Postoperative intravenous fluid therapy along with antibiotic injection Enrofloxacin @ dose of 7.5 mg/kg b.wt and analgesic injection meloxicam (melonex) @ 0.3 mg/kg b.wt was administered. The surgical wound was cleaned

and dressed periodically with antiseptic solution. The urinary catheter was removed on sixth postoperative day and the animal was able to pass urine normally without any difficulty. Hemogram revealed normal values without peripheral leucocytosis on seventh postoperative day. The sutures were removed on the ninth postoperative day. The animal made an uneven recovery.

## DISCUSSION

Perineal hernia is common in dogs which occurs almost exclusively in intact male dogs (93%) (Hayes *et al.*, 1995). Perineal hernia in female dogs occurs due to trauma. Dogs with short tail were more prone for perineal hernia and most common in Boston terriers, boxers, coolies, poodles and mongrels. Most perineal hernia occurs in middle aged dogs of 5-8 yrs of old (Orsher, 1986). Occurrence of hernia on right side is predominant. Perineal hernia occurs when pelvic diaphragm muscle fail to support the rectal wall, allowing persistent rectal distension and impaired defecation. The cause of weakening of pelvic diaphragm was believed to be associated with male hormones, straining, and congenital or acquired muscle weakness or atrophy. Conditions that cause straining and predispose to perineal hernia include prostatitis, cystitis, urinary tract obstruction, colorectal obstruction, rectal dilatation/deviation, anal sacculitis, diarrhoea and constipation (Karwiec and Heflin, 1992).

Physical examination reveals swelling either unilateral or bilateral with deviation of anal opening. Rectal examination can confirm prostatic hyperplasia, rectal dilatation/deviation and rectal diverticulum, if the rectum is herniated. Radiographical documentation of retroflexion of bladder often requires urethrogram and or cystogram with contrast radiographic study. To demonstrate the position of the rectum and colon barium studies are used (Hosgood, 1995).

Medical management of hernia can be achieved by prevention of constipation using laxatives, stool softeners, dietary change, periodic enema and/or manual rectal evacuation. Urinary bladder can be decompressed to prevent dysuria.

Prostatic abscess is intraprostatic parenchymal accumulation of purulent inflammatory reactants. Incomplete resolution of acute bacterial prostatitis can lead to chronic bacterial prostatitis or abscess formation. Intraprostatic accumulation of prostatic secretions (e.g., in animals with cystic benign prostatic hyperplasia or squamous metaplasia) can become secondarily infected, resulting in to chronic bacterial prostatitis or prostatic abscess. Prostatic abscess can be differentiated from prostatic hyperplasia, prostatic cyst and neoplasia by means of cytological examination which reveals inflammatory cells with bacterial colonies and significant peripheral leucocytosis with neutrophilic shift to left (Karwiec and Heflin, 1992). For treatment of chronic bacterial prostatitis, antibiotic chosen must be able to enter the prostatic lumen and should be chosen on the basis of invitro susceptibility testing; usually, trimethoprim/sulfonamides or fluoroquinolones are the drugs of choice (since *Escherichia coli* is the most common organism); a minimum of 4 weeks of antimicrobial administration is necessary. Enrofloxine was found to be effective for the treatment of prostatic abscess. Second generation cephalosporines may also be used along with analgesic meloxicam or flunixin (Klausner and Osborne, 1983). Castration is optional since the recurrence rate was only 2.7 % in intact dogs (Hayes *et al.*, 1978).

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