



Fig 1 : Animal showing bulging near anal region

Perineal hernia is a condition which occurs when perineal muscles separate allowing rectum, pelvic or abdominal contents to displace perineal skin (Fossum, 1997). The cause of the muscular deterioration could be one or combination of the pathological processes like muscular atrophy, myopathies, hormonal influence and prostatic hypertrophy (Bellinger and Canfield, 2003), and dogs with benign prostatic hyperplasia with increased relaxin levels is supposed to be the main cause of weakening of the pelvic diaphragm (Niebauer *et al.*, 2005). There is convincing evidence that the risk of perineal hernia occurrence for non-castrated dogs is 2.7 times greater than that for castrated dogs (Hayes *et al.*, 1978). Perineal hernia is most often diagnosed in dogs and occasionally in cats (Welches *et al.*, 1992) and is most common in dogs within age groups of 7 to 10 years (Nakaza *et al.*, 2022). Dachshunds, Boxers, Welsh corgis, Boston Terriers and Pekingese breeds have high predisposition to perineal hernia and majority of cases occurs in middle aged and geriatric male dogs (Gallagher, 2020) and perineal hernia in dogs most commonly occurs in right side (Seim, 2007). In dogs, perineal hernia (PH) is caused by the separation of the anal septal muscles and the displacement of pelvic/abdominal organs under the skin of the perineum due to atrophy of the levator ani and coccygeus muscles; these muscle groups make up the pelvic diaphragm (Radlinsky and Fossum, 2019). Hernial contents are surrounded by a thin layer of perineal fascia, subcutaneous tissue and skin. The hernial

contents mainly involve retroperitoneal fat, serous fluids, prostate, urinary bladder, small intestine etc.

Case History and Observations

A male uncastrated German shepherd dog of 6 year old with a body weight of 30 kg was presented at District Veterinary Centre, Palakkad, Kerala. Animal was having a bulging near anal region since 1 month and had difficulty while urinating since 2 days. (Fig 1). Upon palpation hernial contents and hernial ring could be felt. Thus diagnosed as Perineal hernia.

Treatment and Discussion

Food and water was withheld for the dog for a period of 12 hours preoperatively. Hairs around the perineal region was clipped and the skin over the perineal region was aseptically prepared for surgery by swabbing with 70 per cent isopropyl alcohol followed by povidone iodine. Ceftriaxone (Intacef®) was injected at the rate of 25 mg per kg body weight intravenously as prophylactic antibiotic and given a dose of Tetanus toxoid half an hour before surgery. Enema was given to avoid further contamination of the surgical site. The dog was premedicated with atropine (atrotas®) at the rate of 0.045 mg per kg and xylazine (Xylazine) at the rate of 2 mg per kg body weight intramuscularly. Anaesthesia was induced with Propofol (Neorof®) at the rate of 5 mg per kg intravenously and maintained with the same.

The animal was placed on sternal recum-

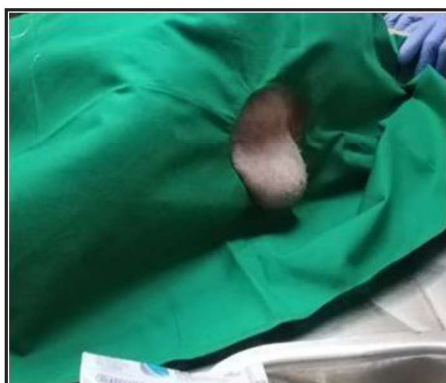


Fig 2: Preparation of surgical site



Fig.3. Incising and opening the hernial sac

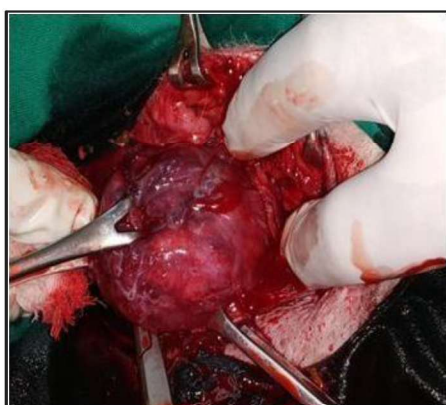


Fig.4 Herniated urinary bladder was identified



Fig. 5 Suturing and closing hernial sac

bency with pelvis elevated. Surgical site was draped with a sterile drape, exposing the hernial sac (Fig.2). An elliptical incision was made over the hernial sac 2cm lateral to anus and extending 3cm from ventral floor of pelvis (Fig.3). Subcutaneous tissue was bluntly dissected and the urinary bladder (hernial content) were exposed (Fig.4). Hernial opening was identified. The bladder was gently compressed to evacuate the urine for easy reduction. The contents were gently reduced. External anal sphincter and levatorani were sutured with simple interrupted suture pattern using 1-0 PGA sutures, ventrally the external anal sphincter and obturator muscles were opposed together. Subcutaneous tissue was closed using simple continuous suture pattern using 1-0 catgut sutures. Skin was closed using nylon by simple interrupted suture pattern (Fig. 5), an intravenous infusion of isotonic Normal saline (0.9%) was administered throughout the period of surgery at the

rate of 10ml/kg/hour.

Postoperative antibiotic therapy was done using ceftriaxone @ 20 mg/kg, analgesic meloxicam @ 0.2mg/kg and oral administration of stool softening agent cremaffin @ 2teaspoonful twice daily. The suture line was dressed twice daily with betadine and cleaning the anal opening was performed after every defecation of the animal. Skin sutures were removed on the 14th postoperative day. Castration was performed in order to prevent the recurrence of hernia and the animal showed uneventful recovery.

Straining to defaecate and perineal swelling are the most consistent clinical signs of perineal hernia (Bojrab and Toomey, 1981). Almost all the animals reported with perineal hernia shows constipation, obstipation, dyschezia and stranguria (if bladder is involved) (Hosgood, *et al.*, 1995). Temporary alleviation of perineal hernia may be obtained from conser-

vative management including the use of stool softeners, periodic enemas and manual removal of faeces (Bojrab and Toomey, 1981). Mainly two methods of surgical correction namely, traditional herniorrhaphy and Internal obturator transposition are practiced for correction of perineal hernia (Fossum, 1997). Standard surgical procedure for perineal hernia involves re-apposition of the muscles of pelvic diaphragm using non-absorbable sutures (Bellenger and Canfield, 2003). About various treatments for perineal hernia which includes the standard herniorrhaphy, transposition of the internal obturator muscle, semitendinosus muscle or superficial gluteal muscle, porcine dermal collagen usage, porcine small intestinal sub mucosa, autogenous fascia lata graft, polypropylene mesh and plastic mesh, the follow-up time of 6 months is adequate (Pekcan, *et al.*, 2010). Recurrence of hernia beyond this interval is more likely to be associated with continued deterioration of the muscles and other tissues in the perineal area rather than failure of the graft (Orsher, 1986). In assessing the success of herniorrhaphy, not only the recurrence but also the postoperative comfort of the animal should be determined, here comes the importance of post-operative analgesia because intense pain cause straining and postoperative continual straining for a long time before healing can lead to recurrence of hernia (Pekcan, *et al.*, 2010).

Summary

The above case encountered in intact male German shepherd dog of 6 years age. Diagnosis was easily done by palpating hernial sac, content and hernial ring. In this case bladder was herniated which leads to stranguria. The animal recovered well after surgery and no recurrence was observed. Veterinarians in small animal practice frequently encounter dogs with perineal hernia. In some cases the presentation is straightforward; an older, intact, male dog with straining and faecal impaction. In severe instances, bladder entrapment or oedema and inflammation of the hernia result in severe illness and the need for emergency treatment. Early castration can be recommended to dog owners to prevent the occurrence of this condition. Elective surgical correction as soon as it is

diagnosed by different herniorrhaphy techniques and proper post-operative care with antibiotics had proved to be helpful to relieve this condition and to prevent its recurrence.

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