



E-ISSN: 2320-7078  
P-ISSN: 2349-6800  
JEZS 2017; 5(3): 902-904  
© 2017 JEZS  
Received: 07-03-2017  
Accepted: 08-04-2017

**B Prakash Kumar**  
Assistant Professor, Department  
of Teaching Veterinary Clinical  
Complex, C.V. Sc, Tirupati,  
India

**MSSV Phaneendra**  
Ph.D Scholar, Department of  
Veterinary Surgery and  
Radiology, C.V.Sc, Tirupati,  
India

**N Dhana Lakshmi**  
Professor, Department of  
Teaching Veterinary Clinical  
Complex, C.V.Sc, Tirupati, India

#### Correspondence

**B Prakash Kumar**  
Assistant Professor, Department  
of Teaching Veterinary Clinical  
Complex, C.V. Sc, Tirupati,  
India

## Surgical management of perineal hernia associated with inguinal hernia in a Spitz

**B Prakash Kumar, MSSV Phaneendra and N Dhana Lakshmi**

#### Abstract

A perineal hernia is a condition that occurs in both dogs and cats in which there is abnormal displacement of the pelvic and/or abdominal organs into the region around the anus called the perineum. Hernias are potentially caused by a variety of factors including trauma, tumors, age and congenital, although there is no known underlying cause of perineal hernias. A hernia of perineal areas is more common in dogs than in cats, and in males rather than in females. If vital organs such as urinary bladder and intestines are herniated, it may become life threatening to dogs as the normal physiological functions are severely affected. The present study focused on the handling of such perineal hernia and successful treatment in a dog. A rare case of unilateral perineal hernia in association with inguinal hernia in a 9 year old male uncastrated Spitz, consisting of omentum like fat as hernial content in both the above mentioned hernias and its successful surgical management was described in the present investigation.

**Keywords:** Perineal, hernia, inguinal, Spitz

#### 1. Introduction

The incidence of perineal hernia is more common in aged intact dogs rarely in females, which may be due to weakness of pelvic diaphragm muscles that lead to the displacement of pelvic and/or abdominal contents such as small intestine, bladder, rectum, prostate and fat caudally to the perineal region [4]. Herniation usually occurs between the external anal sphincter and the levator ani muscles and occasionally between the levator ani and coccygeus muscle [11]. Approximately 59% of the perineal hernia is unilateral while 41% are bilateral [2]. Eventhough the etiology of perineal hernia remains unclear and controversial, consistent associated conditions in males include prostate hyperplasia [7], atrophy of pelvic diaphragm muscles [5], in intact males [5, 6, 12]. Acquired nontraumatic inguinal hernia usually occurs in middle aged intact female when compared to male dogs [10]. Treatment often involves surgery and then prescription drugs to ease the animal's pain. In this paper, a case of acquired unilateral hernia in association with inguinal hernia in a male uncastrated old dog and its surgical management is discussed.

#### 2. Materials and Methods

A 9 years old uncastrated male spitz dog was presented to the Teaching Veterinary Clinical Complex, College of Veterinary Science, Tirupati with history of progressively increased swelling at the left perineal and inguinal region (Fig.1 and 2) and had difficulty in defecation since last 5 days. The case was earlier subjected to medical management but was futile. Physiological parameters like temperature, respiratory rate and pulse rate were within the normal range. On physical examination, both the swelling were soft along with a palpable ring, confirming it as a rare case of unilateral perineal hernia with inguinal hernia, which was decided was surgical correction. Standard herniorrhaphy with surgical incision on the swelling was performed to close the hernia rings in both the hernias followed by castration with a prescrotal incision, to prevent recurrence of the condition.



**Fig 1:** Left perineal herniation

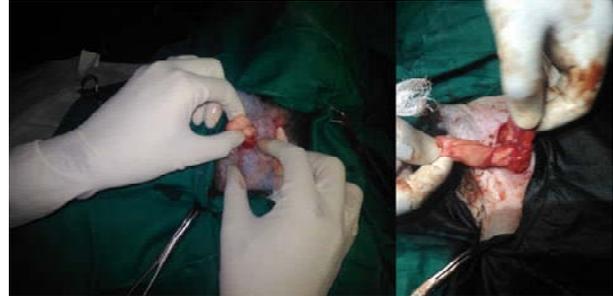


**Fig 2:** Left inguinal herniation

### 3. Results and Discussion

One day prior to surgery, the dog was given warm water soap enema to clear the intestinal contents. The dog was aseptically prepared for perineal and inguinal surgery under general anesthesia. Preanaesthesia was given using inj. atropine sulphate @0.04 mg/kgbw and inj. xylazine hydrochloride @ 1mg/kgbw through intramuscular administration. General anesthesia was induced using inj. Ketamine Hydrochloride @5mg/kgbw through intravenous route and the anesthesia was further maintained on it. The animal was positioned on operation table in Trundelburg position to raise the rear quarters. An elliptical incision was made on the left side extending from base of the tail to the midline of the perineal area. The perineal muscles were extensively damaged and thin. The hernia contents were found to be mainly omentum-like fat (Fig. 3). After repositioning the hernia contents, the musculature of the pelvic diaphragm was sutured starting dorsally and working ventrally. The closure of hernia sac was performed by suturing external anal sphincter to the coccygeus muscles dorsally, to the caudal border of the sacrotuberous ligament laterally and to the internal obturator muscles and fascia overlying the ischium ventrally using polyglycolic acid No. 1. Subcutaneous tissues were apposed with continuous 1/0 chromic catgut sutures to eliminate dead space. The skin sutures were applied after resecting excess skin to avoid possibility of post-operative pocketing. Inguinal

hernia was also repaired after reduction of hernial contents. After herniorrhaphy, the dog was subjected to castration to prevent recurrence. Postoperatively the dog was given Tab. Cefpodoxime 100mg for 7 days, cremaffin liquid as laxative 5 ml bid, meloxicam as anti-inflammatory 5 mg bid for 3 days and advised to feed a low-residue diet upto 2 weeks. The skin sutures were removed on 12 day postoperatively. A long term follow-up upto 4 months revealed the dog to be healthy, with no reoccurrence of the condition (Fig. 4).



**Fig 3:** Hernial contents in both perineal and inguinal herniation were omentum like fat



**Fig 4:** No recurrence was observed after a follow-up of 4 months

Swelling is the major clinical sign usually observed in perineal hernia, which may be unilateral or bilateral [8] and dysuria in bladder retroflexion with incarceration [13]. Some of the etiological factors of perineal hernia include muscular atrophy, myopathies, sex hormonal imbalance and prostate abnormalities [2]. Chronic tenesmus may lead to caudal displacement of the prostate and urinary bladder. Temporary relief of perineal hernia can be achieved by use of laxative, periodic enema and digital removal of fecal materials [3] and actual or chemical castration, which reduces the concentration of circulating androgen hormones as the androgenic receptors are involved in etiopathogenesis of perineal hernia [11]. Castration is required for inhibition of testosterone or relaxin release which reduces the size of prostate, thus minimizing straining during bowel movements [9]. The risk for recurrence among non-castrated dogs was 2.7 times greater than among castrated males [12]. In the present case, the internal obturator muscle was feeble and friable so among the two surgical techniques, standard herniorrhaphy technique was used to secure together the pelvic diaphragm muscles by placing simple interrupted sutures rather than highly recommended technique of transposition of internal obturator muscle as

suggested by <sup>[1]</sup>. The concurrent presence of inguinal-perineal hernias in adult male dogs raises the possibility of a common pathogenesis and also examine every adult male dog with an inguinal hernia for the presence of a coexisting perineal hernia <sup>[11]</sup>. In conclusion, Surgical intervention is the only appropriate choice for the treatment of perineal hernia associated with inguinal hernia, when attempted successfully. In the present case, the dog regained its health without any further complications.

#### 4. References

1. Aliabadi A, Dehghani S. Internal obturator transposition herniorrhaphy of three perineal hernia cases in dogs. *Iranian Journal of Veterinary Surgery*. 2007; 2(3):84-90.
2. Bellenger CR, Canfield RB. Perineal hernia. In: Slatter DH, ed. *Textbook of Small Animal Surgery*. Philadelphia: WB Saunders, 2003.
3. Bojrab MJ, Toomey A. Perineal herniorrhaphy. *Compendium on Continuing Education for the Practising Veterinarian*. 1981; 3:8-15.
4. Chantawong P. Surgical treatment for perineal hernia in dogs. *Journal of Mahanakorn Veterinary Medicine*. 2014; 9(2):121-132.
5. Hayes HM, Wilson GP, Tarone RP. The epidemiological features of perineal hernia in 771 dogs. *Journal of American Animal Hospital Association*. 1978; 14:703.
6. Desai R. An anatomic study of the canine male and female pelvic diaphragm and the effect of testosterone on the status of levator ani of male dogs. *Journal of the American Animal Hospital Association*. 1982; 18:195-202.
7. Krahwinkel DJ. Rectal diseases and their role in perineal hernia. *Veterinary Surgery*. 1983; 12(2):160-165.
8. Pekcan Z, Besalti O, Sirin Y, Caliskan M. Clinical and surgical evaluation of perineal hernia in dogs: 41 cases. *Kafkas Üniversitesi Veteriner Fakültesi Dergisi*. 2010; 16(4):573-578
9. Niles JD, Williams JM. Perineal hernia with bladder retroflexion in a female Cocker Spaniel. *Journal of Small Animal Practice*. 1999; 40(2):92-94.
10. Shahar R, Shamir MH, Niebauer GW, Johnston DE. A possible association between acquired nontraumatic inguinal and perineal hernia in adult male dogs. *Canadian Veterinary Journal*. 1996; 37:614-616.
11. Sharma AK, Chandrakala, Kumari L, Singh S, Kumar S, Kumar P. Successful surgical management of recurrent perineal hernia using colopexy and cystopexy in a dog. *International Journal of Livestock Research*. 2016; 6(4):105-109.
12. Weaver AD, Omamegbe JO. Surgical treatment of perineal hernia in the dog. *Journal of Small Animal Practice*. 1981; 22:749-758.
13. White RAS, Herrtage ME. Bladder retroflexion in the dog. *Journal of Small Animal Practice*. 1986; 27:735-746.