Successful Surgical Management of Recurrent Perineal Hernia Using Colopexy and Cystopexy in a Dog

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Abstract

The aim of this report is to describe the successful management of long standing and recurrent perineal hernia with transposition of internal obturator muscles, colopexy, cystopexy and castration in a non-descript dog.

Key words: Castration, Colopexy, Dog, Herniorrhaphy, Perineal Hernia, Prostate, Urinary Bladder

Introduction

Perineal hernia usually occurs between the external anal sphincter and the levator ani muscles and occasionally between the levator ani and coccygeus muscle. It commonly occurs in middle aged or aged intact male dogs and rarely in females. Muscular atrophy, myopathies, hormonal influences and prostatic hypertrophy are the exciting causes results in muscle deterioration at perineal region and the swelling is usually ventrolateral to the anus. Approximately 59% of the perineal hernia is unilateral while 41% are bilateral (Bellenger and Canfield 2003). Perineal hernia is reported in 15.4% and 46% of dog population by some workers (Burrows and Harvey 1973, Bellenger 1980). Hernia is repaired with herniorrhaphy as the standard method (Orscher 1986) or hernioplasty with use of polypropylene mesh (Martin et al., 2012). Castration is required for inhibition of testosterone or relaxin release (Pekcan et al., 2010) which
reduces the size of prostate, thus minimizing straining during bowel movements. The present report describes the successful management of long standing recurrent hernia by transposition of internal obturator muscles, colopexy, cystopexy and castration in dogs.

**History and Observations**

A 8 years old, male, non-descript dog weighing 25 kg was presented in the department with the complaint of perineal swelling along with difficulty in urination since 20 days (Fig.1). The swelling was progressively increased with anuria and had difficulty in defecation since last 2 days. The dog was operated for perineal herniorrhaphy in field, but reoccurred. The radiographic and ultrasonographic examination revealed that the hernial content was urinary bladder which had retroflex posteriorly (Fig.2). The blood examination revealed increased neutrophils (92%), BUN (80.40 mg/dl) and creatinine (2.80 mg/dl) whereas; AST and ALT levels were in normal limits. Urinary catheterization was tried using hydrorepulsion but was not successful, so cystocentesis was done followed by 300 ml of dextrose normal saline 5% and Tab enrofloxacin antibiotic @ 7 mg/kgbw and liquid cremaffin twice daily orally. One day prior to surgery, the dog was given warm water soap enema to clear the intestinal contents. The case was diagnosed as perineal hernia with retroflexion of urinary bladder as hernia content.

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**Fig. 1:** Photograph Showing Clinical Presentation of the Case with Perianal Swelling.
Treatment and Discussion

The dog was aseptically prepared for perineal 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. propofol @3mg/kgbw through intravenous route and the anesthesia was further maintained on it. The animal was positioned on operation table in Trundelburg position. The incision was given over the distended perineal portion in semilunar shaped. The perineal muscles were extensively damaged, thin, and had fibrin deposition. Muscles near to the colon were also extensively damaged and the urinary bladder was retroflexed (Fig.3). The bladder was positioned in to the pelvic cavity after cystocentesis and then hernial opening was closed by transposition of perineal muscle and colopexy using polyglycolic acid No. 1 suture materials followed by castration at same time. Cystopexy was performed by opening of abdominal cavity through caudal paramedian approach. Skin wound was closed routinely using nylon. The dog was further treated with oral administration of enrofloxacin 150 mg bid, cremaffin liquid as laxative 5 ml bid and meloxicam as anti-inflammatory 5 mg bid for 3 days. The skin sutures were removed on 12 day postoperatively. Telephonic follow up, upto 6 months revealed the dog to be healthy, with no reoccurrence. In perineal hernia, swelling is usually obvious and may be unilateral or bilateral. 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 (Bojrab et al. 1981) and actual or chemical castration using delmodinone acetate which reduces the concentration of circulating androgen hormones because androgenic receptors are involved in aetiology of perineal hernia.

Fig. 3: Photograph Showing Urinary Bladder (Mark with Arrow) As the Herniated Organ

However, most cases require surgical treatment to prevent life threatening complication like incarceration of herniated organs. Transposition of internal obturator muscles is the most reliable technique of herniorrhaphy which results in muscle strength where most hernias occurs (Vnuk et al., 2008). Colopexy performed in the present case was suitable to prevent pressure on the site of hernia repair. Castration is suitable method to prevent straining during bowel movement and helpful in shrinkage of prostate permanently within 3-12 weeks (Hedlund, 2007). The present report describes the long standing recurrence of perineal hernia due to extensive muscle damage, fibroma and fibrin diposition and retroflexion of bladder which successfully treated with transposition of internal obturator muscles, cystopexy and colopexy followed by castration at same time.

References


