

SURGICAL MANAGEMENT OF CHRONIC TRAUMATIC REDUCIBLE FALSE INGUINAL CYSTO-ENTEROCELE IN A MINIATURE POMERANIAN DOG

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Abstract: An adult miniature Pomeranian male dog was presented to the college clinics with a soft fluctuating swelling that developed gradually in a two month period. Hernial ring could be palpated on close examination and the contents were slightly reducible. Lateral abdominal radiography after placing urethral catheter confirmed the condition as cysto-enterocele. Inguinal herniorrhaphy was performed as per standard protocol. Distended urinary bladder, a small loop of jejunum and a swollen lymph node were the hernial contents. With good post operative care and management, the pet recovered well.

Keywords: Miniature Pomeranian, trauma, false inguinal hernia, cysto-enterocele, herniorrhaphy.

INTRODUCTION

Inguinal hernia is protrusion of abdominal organs through the inguinal ring that lie subcutaneously in the groin area (Jahromi *et al.*, 2009). It might be congenital or acquired and the latter occur consequent to trauma, kicks, bites, *etc.* (Fossum *et al.*, 2013). Non-ovario-hysterectomized toy breed bitches were frequently affected with inguinal hernia (Weir, 2023). Unless strangulated or incarcerated or formed adhesions to the hernial sac, the contents would always be reducible. Diagnosis of inguinal hernia was easy based on palpation of the hernial ring at the inguinal area apart from radiography and ultrasonography (Philip *et al.*, 2019). The hernial contents covered with peritoneum is called true hernia, however, many abdominal hernias were false hernias, in which, the contents could be immediately after incising the skin (Kamalakar *et al.*, 2014). Various abdominal contents were found as hernial contents *viz.*, intestines, urinary bladder (Philip *et al.*, 2019), gravid uterus, omentum (Kalita *et al.*, 2012), *etc.* Surgery was the only alternative for treating this condition which sometimes requires hernioplasty if the hernial ring was much bigger (Waters *et al.*, 1993). In present communication, we report a case of chronic traumatic reducible false

inguinal cysto-enterocele in a miniature Pomeranian dog and its successful surgical management.

CASE HISTORY AND OBSERVATIONS

An eight year old miniature Pomeranian male dog was presented to the Surgery ward of Dept. of Veterinary Clinical Complex, NTRCVSC, Gannavaram with a soft swelling in the left inguinal region. Anamnesis revealed that a small bulging was noticed two months before after both the hind limbs were forcibly dragged and later gradually increased in size. The swelling was found to be reduced remarkably after every micturition however; the pet never felt difficulty in urination. Hernial ring could be palpated after reducing the contents. Lateral abdominal radiography following cystic catheterization revealed inguinal cystocele (Fig. 1). Physiological, haemato-biochemical parameters (CBP, ALT, AST, creatinine and BUN) were in normal range.

TREATMENT AND DISCUSSION

After fasting and aseptic preparation of the site, the pet was preanaesthetized by inj. Atropine sulfate @ 0.04 mg/ kg BW SC. General anaesthesia was induced by inj. Midazolam and inj. Ketamine hydrochloride @ 0.2 and 10 mg/ kg BW IV respectively, maintained with isoflurane and restrained in dorsal recumbency. A linear incision was made over the swelling and found distended urinary bladder and a small jejunal loop as the hernial contents that were not covered by peritoneal membrane (Fig. 2). The hernial ring measured 2.5 inches long and herniorrhaphy was performed by placing simple interrupted sutures using vicryl no. 1 (Fig. 3). Later, the wound closed routinely and provided proper post operative care. The sutures removed on day 12 (Fig. 4) and no post operative complications were reported even after two months of surgery.

Female dogs of middle age were frequently prone to acquired inguinal hernias as they have wider inguinal ring, continuously sensitized by estrogen and extra pressure in abdomen caused by gravid uterus. However, male dogs have no such etiologies; instead, their inguinal area could be weakened by administration of cortisones and trauma. Smaller or toy breed dogs like Daschund, Terrier, Pekingese, *etc.* were more affected which was attributed to the multiple gene inheritance (Weir, 2023). In present case, it was a male miniature Pomeranian breed dog, which acquired hernia because of excessive inadvertent pull on both hind limbs. The pull resulted in widening of inguinal ring through which the abdominal contents slowly herniated. In the present case, the contents were urinary bladder and a small intestinal loop not covered with peritoneum which could be reducible easily. Urinary bladder and intestines

were most common hernial contents identified as they were very close to the inguinal ring anatomically. On the other hand gravid uterus, mucometra, intestinal loops, omentum, spleen, prostatic fat, *etc.* was among other hernial contents reported by several authors (Waters *et al.*, 1993; Smeak, 2012; Sontas *et al.*, 2013). Urinary bladder and intestinal loops were identified outside the abdomen on a lateral abdominal radiograph which was an important aid in diagnosing inguinal hernial contents (Philip *et al.*, 2019). Herniorrhaphy was the only option to opt out to treat any type of hernia, but, hernioplasty was also followed if the hernial ring was bigger (Smeak, 2012). Closely placed simple interrupted sutures with tough material is key in successful herniorrhaphy.

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Fig. 1: Skiagram showing catheterized urinary bladder (green arrow) and adjacent intestinal loops (yellow arrow) outside the abdominal wall.



Fig. 2: Photograph showing urinary bladder and part of small intestine as hernial contents.

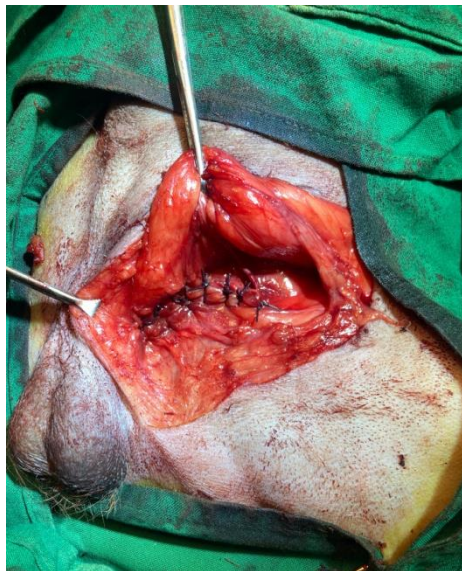


Fig. 3: Photograph showing closed hernial ring

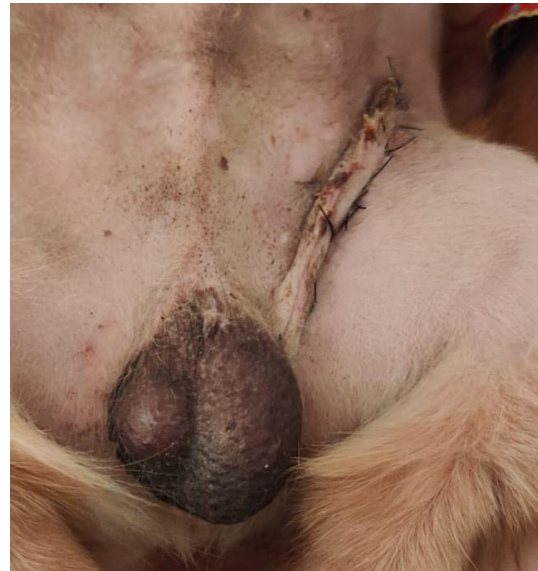


Fig. 4: Photograph showing healed surgical site by day 12.