ABSTRACT. A 2-year-old (63 days) pregnant female dachshund dog was presented to the Teaching Veterinary Clinical Complex (TVCC) with complaint of a progressively growing swelling in the caudal ventral abdominal area. History, physical examination, radiography and ultrasonography confirmed an inguinal hystrocoele. A ventral midline incision on the mass was made to relieve the foetuses and reduction of contents, and herniorrhaphy was performed. Sutures were removed on 7th post-operative day and the animal had an uneventful recovery.

Keywords: hystrocoele, dachshund dog, herniorrhaphy, pregnancy

INTRODUCTION

Inguinal hystrocoele, where there is herniation of uterus through the inguinal canal comes under the category of caudal ventral abdominal hernias (Slater D.; 1993). Even though no breed predilection has been reported, it is most commonly observed in toy breeds of dogs. Inguinal hernias can be either traumatic or non-traumatic. The common contents in the hernial sac include fat, uterus, omentum, bladder and ovary (Byers G.C. et al., 2007; Kalitha D. et al., 2012; Simon S.M. et al., 2013; Slatter D. et al., 1993 and Waters D.J. et al., 1993). For the surgical correction of the condition, either conventional method of incising through the ring or through ventral midline incision can be adopted (Serin G. et al., 2009; Slatter D. et al., 1993 and Waters D.J. et al., 1993). A case of an inguinal hystrocoele in a female dachshund dog and its successful surgical management is placed on record.

A 2-year-old female dachshund dog weighing 8 kg was presented to the
Teaching Veterinary Clinical Complex (TVCC), Mannuthy, Kerala with the complaint of a progressively growing swelling in the inguinal region (Figure 1). The mass was hard to palpate and non-painful. The animal was on the 63rd day of pregnancy. The animal was lethargic with subnormal body temperature (99.5 °F). The heart rate was 120/min and the conjunctival mucous membrane was pale roseate. The capillary refill time was >2/min. The respiratory rate was 23/min. There was normal food and water intake and a brownish vaginal discharge was also observed. Lateral radiograph of the mass revealed skeletal structures (Figure 2) of the foetuses which confirmed the condition as inguinal hysterocoele and ultrasonography of the mass confirmed the presence of two live foetuses. The condition was diagnosed as inguinal hysterocoele and it was decided to correct it by surgical intervention.

RESULTS

General anaesthesia was induced with injection of ketamine hydrochloride (Aneket, Neon Laboratories, Thane, Maharashtra, India) at 5 mg/kg body weight after premedication with injection of atropine sulphate (Atral, Geevet, Mehsana, Gujarat, India) at 0.045 mg/kg body weight and injection of xylazine hydrochloride at 1.5 mg/kg body weight intramuscularly. The anaesthesia was maintained with 2.5% isoflurane. Pre-operative administration of Ringer’s Lactate (RL, Parenteral drugs (India) Limited, Indore, Madhya Pradesh, India) at the rate of 10 mg/kg. Ceftriazone (Intas Pharmaceuticals Ltd., Ahmedabad, Gujarat, India) at the rate of 25 mg/kg and injection of Tramadol (Contramal, AHPL, Goregaon, Maharashtra, Mumbai, India) at the rate of 2 mg/kg was done intravenously.

The dog was controlled on dorsal recumbency and an incision of about 4 cm long was made on the swelling to expose gravid uterus. The uterus was incised to relieve two live foetuses. The uterine incision was sutured with 2-0

Figure 3. Uterine incision closed by Cushing’s followed by Lembert’s suture pattern.
Polyglactin 910 (Reylon Glaclatin, M Co Hospital Aids Pvt. Ltd., Hubli, Karnataka, India) in Cushing’s followed by Lembert’s suture pattern (Figure 3). The herniated uterus was gently reduced back to the abdominal cavity and the hernial ring was closed with Polyglactin 910 in simple continuous suture pattern. Subcutaneous tissue was apposed with 2-0 Polyglactin 910 in subcuticular suture pattern. The skin was apposed in horizontal mattress sutures using polyamide (Ethilon, Johnson and Johnson Limited, Aurangabad, Uttar Pradesh, India). A cotton gauze stent was placed over the suture line. Confinement and rest to the animal was given to prevent self mutilation of the surgical site. Post-operatively, Cefalexin 250 mg two times daily was advised for 5 days.

On the 7th post-operative day, the animal was healthy, the sutures were intact and food and water intake of the animal was normal. The sutures were removed and the animal had an uneventful recovery.

**DISCUSSION**

Inguinal hysterocoele can be acquired due to traumatic or non-traumatic causes, and toy breeds of dogs and dachshund are predisposed to this condition. Anatomic causes like shorter and large diameter vaginal process, nutritional causes, increased abdominal pressure due to obesity or pregnancy predisposes this condition. History, physical examination and ultrasonography are useful tools for the diagnosis of the condition (Martin K.D.J. et al., 2001; Munro E. et al., 1993; Nak Y. et al., 2004; Noakes D.E. et al., 2001; Serin G. et al., 2009; Simon S.M. et al., 2013 and Slatter D., 1993). Radiography can also be employed to confirm the condition in advanced stages of pregnancy (Azari O. et al., 2008 and Munro E. et al., 1993). Mammary neoplasms, mastitis and local abscesses are the major conditions to be differentially diagnosed (Noakes D.E. et al., 2001).

The surgical correction of this condition involves pre-operative, operative and post-operative considerations. Pre-operative diet restrictions, stabilisation of the animal, antibiotic and analgesic therapy are very important (Slatter D., 1993). Injectable dissociative anaesthetics may be used for induction of anaesthesia (Nak Y. et al., 2004). Conventional hernial repair through the inguinal ring (Slatter D., 1993 and Waters D.J. et al., 1993) or a ventral midline incision parallel to the flank folds lateral to the hernial ring are feasible (Azari O. et al., 2008 and Slatter D., 1993). If further breeding is not intended, an ovariohysterectomy may be performed (Gogny A. et al., 2010). Incisional dehiscence and hernia recurrence were reported as complications in the surgical correction of inguinal hernias (Waters D.J. et al., 1993). Incarceration of the uterus may also occur as a complication of hernia (Serin G. et al., 2009).

Early presentation of the case, proper and timely diagnosis and treatment are necessary for a favourable outcome in the surgical management of inguinal
hysterocoele. Even though the occurrence of inguinal hysterocoele is rare, timely diagnosis and treatment could prevent untoward complications.

REFERENCES