HYSTEROCELE LEADING TO PARTIAL FOETAL RESORPTION IN A NON-DESCRIPT CAT

B. Bibin Becha[1], Narasimhamurthy[2], M. Navya[3] and G.J. Renukaradhya[2]
[1]Ph.D. Scholar, [2]Assistant Professors, [3]Contract Teacher; Department of Veterinary Gynaecology and Obstetrics;
Veterinary College, KVAFSU, Hebbal, Bengaluru – 560 024.
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A three year old non-descript cat was presented with the history of anorexia, restless howling and a gradually enlarging, soft, painful, irreducible and fluctuating mass in the right paramedian caudo-ventral abdominal region. Ultrasonography revealed a round anechoic sac in the enlarged mass, anterior to the urinary bladder. A viable foetus of approximate gestational age of 45 ± 2 days was located within the abdomen. The condition was diagnosed as abdominal hysterocele and en-bloc surgery and herniorrhaphy was performed. Left uterine horn contained a developing foetus and the right uterine horn which was in the hernial sac had a regressing amniotic vesicle with a small dead foetal remnant.
Key words: Cat, Herniorrhaphy, Hysterocele, Partial foetal resorption.

A hernia is a protrusion of an organ or part of an organ through a defect in the wall of the anatomical cavity within which it normally lies. Hernial defects may occur at 'normal openings' or they may be through an abnormal opening following a trauma (Pratschke, 2002). Hysterocele is herniation of uterus through inguinal or abdominal defects. Inguinal herniations of gravid uterus in dogs have been reported (Singh *et al.*, 2013; Prasad *et al.,* 2016). Abdominal hernia -tion of gravid uterine horn is extremely rare in cats and can lead to pregnancy complicatio -ns. The present case reports abdominal herniation of a gravid uterine horn leading to partial fetal resorption in a female cat.

Case History and Observations

A three year old non-descript cat, weighing 2.8 Kg, was presented to the clinic with the history of anorexia and a gradually enlarging mass in the right paramedian caudo-ventral abdominal region. The animal had met with an automobile accident five months ago and the right lower limb was amputated due to irreparable damage. The lower abdominal swelling was noticed since 10 days, which enlarged like an oval structure.

The animal was anorectic for the past five days and showed restless howling. On palpation, the abdominal mass was soft, fluctuating and painful. An elliptical hernial ring could be palpated, but the mass was irreducible. On ultrasonography, a round anechoic sac could be located within the mass, anterior to the urinary bladder. A viable foetus of approximate gestational age of 45 ± 2 days (BPD=1.54cm) could also be seen (Fig.1).

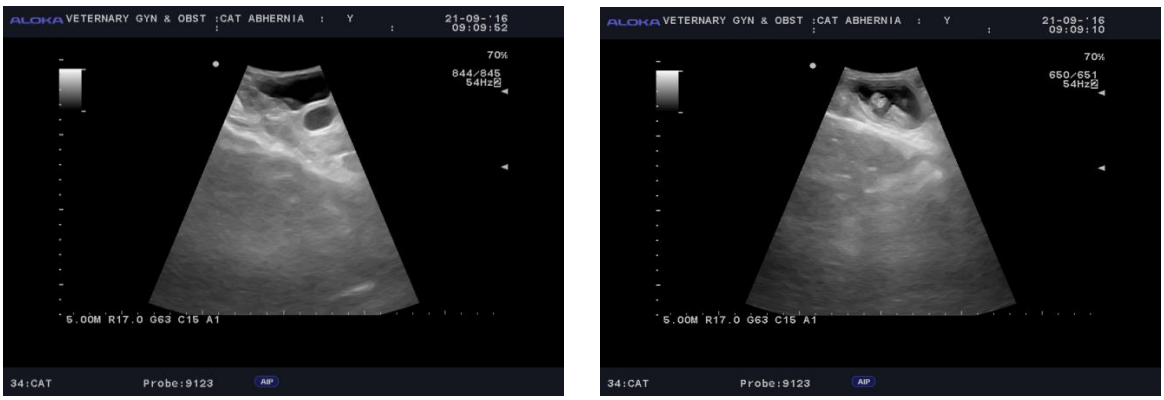

Fig. 1. Trans-abdominal ultrasonography showing a round anechoic sac just anterior to urinary bladder and a foetus of 1.54 cm BPD

Haematology revealed a total RBC count of 9.0 millions/µl, WBC count of 17,500/µl, PCV 32 %, Haemoglobin 12.6 g/dl, platelet count of 2,50,000/µl and serum creatinine, ALT, total protein and glucose levels of 1.2 mg/dl, 46 U/L, 7.8 g/dl and 110 mg/dl, respectively. Haemato-biochemical parameters were found within the normal range for the species. Based on history, clinical finding and ultrasonography, the condition was diagnosed as abdominal hysterocele and decided to perform en-bloc surgery and herniorrhaphy.

Treatment and Discussion

Laparotomy was performed through the right paramedian abdominal approach over the mass under general anaesthesia using a combination of xylazine and ketamine (Xylazine @ 1 mg/Kg body wt. and ketamine @ 20 mg/Kg body wt.). The herniated mass was enlarged uterine horn and the gravid uterus was exteriorised and en-bloc surgery was performed. The peritoneum and overlying muscle layer was closed by overlapping technique using No.1 nylon. The other muscle layers were repaired by lockstitch technique using polyglactin 910. The loose portion of subcutis and skin were removed and sutured layer wise as in routine manner. The animal was treated orally with antibiotics and alternate day wound dressing was followed. Animal had an uneventful recovery by 10 days of surgery.

Each uterine horn of removed genitalia had one turgid swellings corresponding to the amniotic vesicles. The left horn had an ovoid swelling of 4×3×3 cm in size and the right uterine horn had a globular swelling of 2 cm in diameter (Fig. 2). A developing foetus of approximately 4.0 cm length with intact foetal membranes was seen inside the left horn. Right horn contained a regressing fluid filled vesicle with a small dead and shrivelled foetus of approximately 0.5 cm in size without any foetal membranes (Fig. 3).

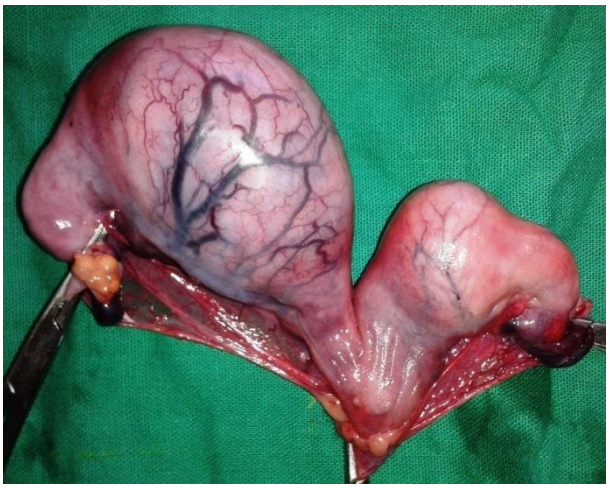

Fig. 2.Gravid uterus removed by en-bloc surgery

Fig. 3. Opened uterus showing a developing foetus in left uterine horn and a involuting foetal sac with a small foetal remnant in the right uterine horn

In this case, the condition could be diagnosed with the help of trans-abdominal ultrasonography. Foetal viability and gestational ageing was assessed by ultrasonography as also mentioned by Zambelli and Prati (2006). But the fetal resorption was identified only after surgery. Foetal resorption occurred only on the herniated right uterine horn, which may be due to space constraints for foetal growth or may be due to decreased blood supply to this horn.

En-bloc surgery was preferred in this case to prevent further complications. Herniorrhaphy by overlapping technique using nylon has been adopted as also reported by Singh *et al.* (2013). For traumatic hernias, absorbable suture materials such as

polydioxanone are usually sufficient, while congenital or other acquired hernias require non-absorbable suture materials such as polypropylene as also reported by Pratschke (2014). Complications in dogs treated surgically for inguinal hernia include incisional infection, wound dehiscence, hematoma, seroma, excessive postoperative swelling, recurrence of hernia, sepsis or peritonitis and death also mentioned by Alireza *et al.* (2009). In this case, animal recovered completely without any complications.

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