

UTERINE TORSION IN A PREGNANT CAT - A CASE REPORT

ADITYA V. SINGH¹ and K.S. ADEY*

Department of Veterinary Surgery and Radiology, Nagpur Veterinary College,
Maharashtra Animal and Fishery Sciences University, Nagpur-440010

¹Veterinary Surgeon, Vets for Life, Bhupeshnagar, Nagpur-440013 (Maharashtra)

Received: 28.12.2023; Accepted: 30.03.2024

SUMMARY

An eight-month old female Persian cat was presented with history of lethargy, inappetence and anaemia from last two-days. The cat had delivered three kittens (two alive and one stillbirth) 24 hour earlier. Ultrasonography revealed two fetuses with no cardiac activity. Urgent surgical intervention was deemed necessary. The left uterine horn appeared dark red during surgery, and its base had turned round in a clockwise direction at 360 degrees. An ovariohysterectomy was then carried out. The cat showed full recovery postoperatively.

Keywords: Cat, Ultrasonography, Uterine torsion

How to cite: Singh, A.V. and Adey, K.S. (2026). Uterine torsion in a pregnant cat - A case report. *Haryana Veterinarian*. 65(1): 153-155.

Uterine torsion, which is more frequently seen in multiparous females, is described as the rotating of the entire uterus or either one or both horns along its longitudinal axis. Even though cattle and buffalo are commonly observed to have this problem, in cats and dogs, it has rarely been reported. Pregnancy is frequently associated with uterine torsion, which can develop from mid to late in the gestational period (Thilagar, 2005). The exact etiology for uterine torsion is unknown. However certain contributing factors are associated with uterine torsion. It may be related to uterine ligament laxity, foetal movements, premature contractions of uterus, uterine walls flaccidity, long and/or sagging mesometrium, and possibly an insignificant quantity of foetal fluids; excessive physical activity during pregnancy, obstetric operations during dystocia, and variations in the proper ovarian ligament's length and mobility (Stone, 2007).

Torsion of either one or both uterine horns has been documented, with torsion degrees varying from 180° to 360° (Freeman, 1988). Torsion compromises uterine vasculature, resulting abruption of placenta and uterine tissue, alongwith haematological and metabolic disturbances (Misumi *et al.*, 2000 ; Ridyard *et al.*, 2000) that could result in endotoxemia, peritonitis and disseminated intravascular coagulation (DIC) (De La Puerta *et al.*, 2008).

An eight-monthold 3.5 kg female Persian cat was presented with a history of recent parturition 24 hrs earlier. On physical examination, the cat demonstrated signs of systemic compromise including lethargy, mild dehydration (5%), pale mucous membrane with a prolonged capillary refill time of 3 seconds and an acute abdomen with palpable

large tubular structure in the mid abdominal cavity. The patient demonstrated dullness with preserved responsiveness to environmental stimuli. No vaginal discharge was observed. The vital parameters such as rectal temperature (100.00 F), heart rate (150 beats/min) and respiratory rate (25 breaths/min) were within the normal physiological range. Haematological assessment revealed anaemia, with haemoglobin levels significantly reduced at 6.8 g/dL, RBC ($3.7 \times 10^{12}/L$) leukocytosis ($25 \times 10^9/L$), PCV (29%), platelets ($240 \times 10^3/\mu L$). Serum creatinine, blood urea nitrogen, ALT and AST were within the normal range. Ultrasound examination was performed which showed two fetuses with no cardiac activity. The cat displayed no signs of straining after delivery of two kittens for 24 hrs. As a result, it was decided to opt for immediate surgical intervention.

Prior to the procedure, the cat was premedicated using atropine sulphate (0.04 mg per kg) subcutaneously and buprenorphine HCl (0.02 mg per kg intravenously; Leptan [Otsuka Pharmaceuticals]). Sedation was achieved with the combination of triflupromazine HCl (2 mg/kg, Siquil [Zydus Animal Health]) and ketamine HCl (20 mg/kg, Ketmin [Themis Medicare]) intramuscularly. Propofol (5 mg per kg intravenously; Neorof [Neon]) was administered to induce general anaesthesia and maintained at the same dose till effect. A routine ventral midline laparotomy was performed. Intraoperatively, scant amount of mild dark bloodcoloured fluid was noted in the peritoneal cavity. The right uterine horn appeared empty whereas the fetuses were stuck in left horn due to torsion. The affected left horn of the uterus appeared distended, congested and friable (Fig. 1) which underwent a 360-degree clockwise rotation at its. The right uterine horn exhibited anemia-related pallor

*Corresponding author: khushbooadey7@gmail.com

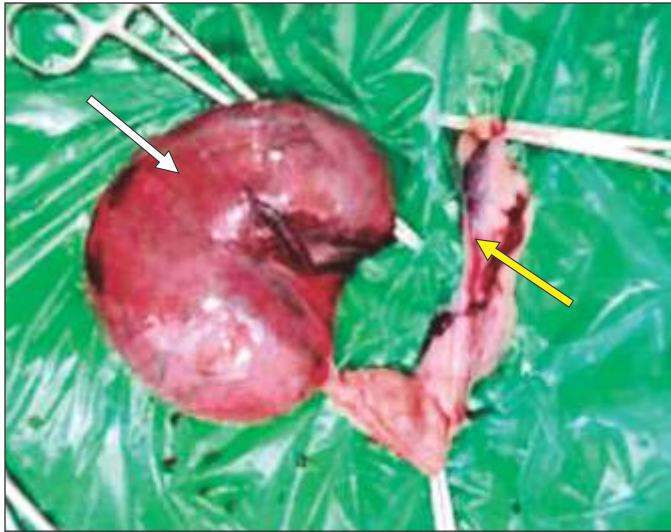


Fig. 1. Post operative photograph of uterine torsion. The left uterine horn (yellow arrow) is dark in colour. The right uterine horn is pale because of anemia (blue arrow).

while remaining in normal anatomical position. (Fig. 2). As no fetal cardiac activity was noted on ultrasonogram, ovariectomy was carried out using standard technique without performing caesarean section. The left and right ovaries were identified and grossly appeared normal. The torsion was left unresolved to prevent endotoxin release into the systemic circulation. Abdominal lavage with warm saline solution was performed. The surgical incision was closed using routine closure techniques.

Post-operatively, the cat was given intravenous fluid therapy, antibiotic (ceftriaxone [Wocef, Vetoquinol] 12.5 mg/kg every 12 hours), analgesic (Tramadol; [Contramal, Abbott], 2 mg/kg every 8 to 12 hours) for five days. The cat was advised to use Elizabethan collar for seven days. The cat was bright and alert and urinated normally with no evidence of discharge from the vulva. The cat recovered uneventfully.

The incidence of uterine torsion in cats is low, with sparse reporting in clinical cases (Thilagar *et al.*, 2005; Matsumoto *et al.*, 2009). In all domestic animal species, uterine horn torsions can occur during mid to late gestation or right before delivery (Pratt, 1983), however, in cats, it usually happens just before parturition or in late pregnancy (Kudale *et al.*, 1972). In the present case, torsion in left uterine horn was noted at the time of parturition while the fetuses present within the right uterine horn were delivered normally without any assistance. Uterine torsion has been represented with the clinical sign of acute abdomen (Misumi *et al.*, 2000; Ridyard *et al.*, 2000; De La Puerta *et al.*, 2008) which is also noted in the present case where the



Fig. 2. Post operative two dead fetuses were observed from the affected uterine horn.

cat was presented with abdominal distension and pain. Cats may experience uterine torsion typically involving a rotation of 180 to 360 degrees (De La Puerta *et al.*, 2008). Prior studies have demonstrated that this factor substantially impacts the severity, clinical sign duration and prognostic outcomes (Thilagar *et al.*, 2005). Cats from earlier reports had immediate, serious clinical symptoms such as peritonitis, septicemia, disseminated intravascular coagulation, and endotoxemia (De La Puerta *et al.*, 2008). In the present case, the uterine torsion was of 360° and was reported early that resulted in uncomplicated recovery of the queen. The results of the hematological tests revealed anemia that is consistent with loss of blood, attributing to the significant blood volume in uterus and haemostasis of the uterine vasculature as a result of torsion (Ridyard *et al.*, 2000; Thilagar *et al.*, 2011).

Although the identification of fetal death and fluid accumulation necessitates abdominal ultrasonography, the precise diagnosis of uterine torsion could only be made by an exploratory laparotomy as reported by Dal-Bo *et al.* (2013) and Niwas *et al.* (2023). As soon as the left uterine horn's torsion was detected, ovariectomy was carried out without the uterus being repositioned as advised by Stanley and Pacchiana (2008) to curtail the translocation of inflammatory mediators and endotoxins into systemic circulation. The research indicates that a favourable outcome for cats is dependent on early surgical intervention, adequate perioperative medical support and extent of uterine torsion (De La Puerta *et al.*, 2008). Similarly, Ridyard *et al.* (2000) stated that with early intervention, supportive critical care and ovariectomy

(Niwas *et al.*, 2023), the prognosis for uterine torsion ranges from favourable to good.

CONCLUSION

Cats seldom have uterine torsion and is mostly diagnosed at the time of exploratory laparotomy. It is an emergency condition and a delay in surgical intervention, which mostly accounts for ovariohysterectomy could be life threatening.

REFERENCES

DalBo, I., Correa, T.O., Ferreira, M.P., Nobrega, F.S., Idalencio, R. and Brun, M.V. (2013). Uterine torsion in domestic feline - Case report. *ARS Veterin.* **29**(2): 88-92.

De La Puerta, B., McMahon, L.A. and Moores A. (2008). Uterine torsion in a non-pregnant cat. *J. Feline Med. Surg.* **10**: 395-397.

Freeman, L. (1988). Feline uterine torsion. *Compendium on Continuing Education for the Practicing Veterinarian* **10**: 1078-1082.

Kudale, M.L., Wadia, D.S. and Jambagi S.N. (1972). Torsion of uterus in a cat: a case report. *Indian Vet. J.* **49**: 1148-1149.

Matsumoto, H., Kakehata, T. and Hanada, K. (2009). A case of uterine

torsion associated with uterine endometrial polyps in a non-gravid cat. *J. Anim. Clin. Med.* **18**: 35-40.

Misumi, K., Fujiki, M., Miura, N. and Sakamoto, H. (2000). Uterine horn torsion in two non-gravid bitches. *J. Small Anim. Pract.* **41**: 468-471.

Niwas, R., Jinagal, S., Amandeep, Anil, and Dutt, R. (2023). Uterine rupture associated with uterine torsion in a pregnant bitch. *Indian J. Animal Reprod.* **44**(2): 93-95.

Pratt, P.W. (1983). *Feline Medicine*. (1st Edn.). Santa Barbara, American Veterinary Publications. pp. 542-543.

Ridyard, A.E.; Welsh, E.A. and Gunn-Moore, D.A. (2000). Successful treatment of uterine torsion in a cat with severe metabolic and haemostatic complications. *J. Feline Med. Surg.* **2**: 115-119.

Stanley, S.W. and Pacchiana, P.D. (2008). Uterine torsion and metabolic abnormalities in a cat with a pyometra. *Can. Vet. J.* **49**: 398-400.

Stone, E.A. (2007). Ovary and Uterus. In: Slatter, D. *Handbook of Small Animal Surgery* (3rd Edn.), Vol. 2, Barueri: Manole, pp. 1487-1502.

Thilagar, S., Yew, Y.C., Dhaliwal, G.K., Toh, I. and Tong, L.L. (2005). Uterine horn torsion in a pregnant cat. *Vet. Rec.* **157**: 558-560.

THE HARYANA VETERINARIAN

Editors/Editorial Board Members are highly thankful to all the distinguished referees who helped us in the evaluation of articles. We request them to continue to extend their co-operation and be prompt in future to give their valuable comments on the articles for timely publication of the journal.