Short Communication

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Surgical Management of Dystocia Due to Uterine Torsion in a Persian Cat

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ABSTRACT

A female Persian cat having four years of age was presented with history of fifty eight days of gestation, anorexia, vaginal discharge and abdominal distension at Veterinary Clinical Complex, PGIVER Jaipur. The female cat had delivered three dead fetus, showing crying behavior. Radiography revealed presence of three underdeveloped fetus and ultrasonography was performed which showed no cardiac activity. An emergency caesarean section was performed which discovered uterine torsion of 360° in right horn. Thereafter, an ovariohysterectomy was performed as the uterus was necrosed under general anaesthesia. After receiving fluid therapy and antibiotics, the patient recovered and regained appetite a few days after the surgery.

Keywords: Uterine torsion, Radiography, Ultrasonography, Caesarean section, Abdominal distension.

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INTRODUCTION

The term "uterine torsion" defines the twisting of uterus on its own axis (Noakes, 2019). As shown by the meager case reports in the scientific literature, cats (Thilagar *et al*., 2005; Kuroda *et al*., 2017) and dogs (Mohammed *et al*., 2019) were less likely to suffer from this illness than cattle (Purohit *et al*., 2019) and buffaloes (Stanley and Pacchiana, 2008) .The aetiology of this condition was unknown, however it could be related to the uterus's broad ligament laxity, foetal movements, uterine contractions, the existence of flaccid uterine walls and the little amount of foetal fluids (Stone, 2007). In small animals, uterine torsion was manifested as uterine inertia (primary or secondary) or obstructive dystocia and only identified during laparotomy/caesarean section (Noakes, 2019).

CASE HISTORY AND OBSERVATIONS

A female Persian cat aged four years was presented with history of 58 days of gestation, abdominal distension, vaginal discharge and anorexia at Veterinary clinical complex gynaecology section PGIVER Jaipur. The cat had delivered three dead foetus and was showing crying behaviour. Physical examinations were found normal. Radiography and ultrasonography was performed. On radiographic

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examination three underdeveloped foetus were found. In ultrasonography no cardiac activity was detected, also foetal fluid was less. The animal was taken for caesarean section under general anaesthesia followed by ovariohysterectomy.

TREATMENT AND DISCUSSION

To make a patent I/V access an intravenous catheter was secured. The fluid therapy (RL) was started at the maintenance dosage of 2 ml/kg/min in addition to a replacement dose that had been previously determined. Aseptic procedure prepared the midline laparotomy site from the xiphoid to the pubis. Xylazine HCL (Xylaxin) was administered intramuscularly to the animal at a dose of 0.5 mg per kg body weight to induce sedation. Ketamine HCL was injected intravenously at a dose of 15 mg per kg body weight to induce and maintain anaesthesia. An exploratory laparotomy was performed, a mid-line ventral incision between xiphoid to pubis of skin, subcutaneous tissue and Linea alba was given. Upon investigating the right side of the abdomen, an extensive edematous and congested uterine horn was found, upon lifting it out, another horn was found beneath the first. With the incision a dark-colored fluid came out. There was a 360-degree twist in the right horn and edematous and heavily congested uterine blood vessels on the left side (Fig. 1). As the uterus was very fragile and necrosed so ovariohysterectomy was performed and later on three fetus were removed from the uterus.

In order to control the anaerobic infection, the animal was given metronidazole (10 mg per kg body weight twice a day) and an antibiotic amoxicillin-clavulanic acid (22 mg per kg body weight) twice a day. As an anti-inflammatory, ketoprofen was also administered intramuscularly at a dose of 1 mg per kg of body weight. An antiseptic (betadine) was applied on the incision.

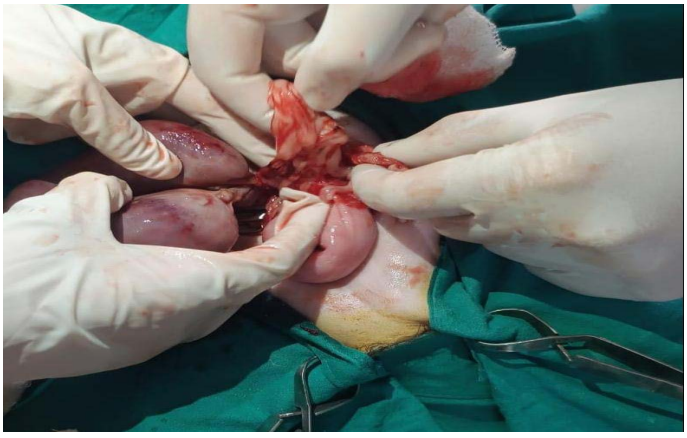

Fig. 1 : Affected uterine horn with torsion

Uterine torsion was a rare condition in cats that could be connected to the third trimester of gestation. According to De La Puerta *et al*., (2008), the clinical presentation was characterised by indications of acute abdomen. A painful and enlarged abdomen, vaginal secretions, anaemia, dehydration, a history of dystocia or kittens were born but still the cat had distended abdomen, and diagnostic imaging such as radiography and ultrasound might also assist in the diagnosis. The definitive diagnosis of uterine torsion was not possible without exploratory laparotomy. As advised by Stanley and Pacchiana (2008), OH was carried out without moving the uterus in order to reduce the release of endotoxins and inflammatory mediators into the bloodstream. This was done after the right uterine horn was found to be twisted on its longitudinal axis. Because of the mammary gland development and the long healing process (McGrath *et al*., 2004), the mid-ventral approach was avoided in this case. The cat in this case was recovered and just fluid therapy along with antibiotics was given and no blood transfusion was required unlike (Kuroda *et al*., 2017). The cat also resumed eating with a decreased appetite. Despite being a rare disorder, uterine torsion in cats should be considered a maternal factor for difficult labour and should be included in the differential diagnosis. It is also advised that the surgeon should do an exploratory laparotomy as soon as possible to prevent serious and life-threatening consequences.

CONCLUSION

This was the first time we reported a uterine torsion case in Persian cat. Clinical findings included acute abdominal pain, anorexia, vaginal discharge and abdominal distension. Pregnancy was confirmed using ultrasonography and radiography. Confirmation of uterine torsion was done by exploratory laparotomy and ovariohysterectomy was performed under general anaesthesia.

CONFLICT OF INTEREST

There is no conflict of interest among authors.

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