

# SURGICAL MANAGEMENT OF COMPLETE POSTPARTUM UTERINE PROLAPSE IN A CAT

Vidya V.K.<sup>1</sup>, Jayakumar C.<sup>2</sup>, Abhilash R.S.<sup>2</sup>, Sophia X.<sup>1</sup> and Arun H.D.<sup>1</sup>

M.V.Sc. Student, Assistant Professor, Department of Animal Reproduction, Gynaecology and Obstetrics, College of Veterinary and Animal sciences, Mannuthy, Thrissur, 680651.

[Received: 22.5.2019; Accepted: 11.11.2019]

{DOI 10.29005/IJCP.2019.11.2.161-162}

A cat that delivered three live kittens was presented with prolapse of uterus on second day of kitting. The cat had an unassisted delivery with kitting time extending more than 24 hours. The 'Y' shaped everted mass was oedematous, discoloured and ulcerated on some areas. Based on the clinical findings, complete uterine prolapse was confirmed. Manual replacement of the prolapsed uterus followed by ovariohysterectomy was performed. Post-surgical antibiotic and supportive therapies were provided for a week after which the cat was recovered uneventfully.

**Keywords:** Complete postpartum Uterine Prolapse, Manual Replacement, Ovariohysterectomy.

**P**rolapse of the uterus is an obstetrical emergency that occurs infrequently in the cat. It has been reported in cats of age ranging from 10 months to 6 years and the condition follows immediately after, or up to 48h of kitting (Deroy et al., 2015). Based on the degree of dilatation of cervix, the prolapse can be complete with protrusion of both the horns or only one horn or uterine body (Davidson, 2009). Excessive relaxation of the cervix, contractions induced by oxytocin, rough handling during parturition, severe tenesmus, incomplete placental separation and uterine atony, previous rupture of the mesovarium and mesometrium can predispose to uterine prolapse (Bigliardi et al., 2014). Severity of the clinical signs and prognosis depend on the duration of the prolapse. The treatment methods include amputation of the everted uterus, manual reduction and repositioning of uterus by abdominal palpation and use of infusion as well as manual reduction of the prolapse through laparotomy, followed by ovariohysterectomy (Deroy et al., 2015).

## Case history and Observations

A one year old primiparous, non-descript cat was presented at University Veterinary Hospital, Kokkalai, Kerala Veterinary and Animal Sciences University with protrusion of a mass through the vulva. The cat had delivered three live kittens with prolonged and intense straining efforts, with a kitting

time of more than 24hrs without any assistance. A day after parturition, the owner noticed a red mass protruding from the vulva. On presentation, the cat was alert and responsive, but lethargic. Dehydration score was 8-10% and hypothermic with body temperature of 99.5°F. Haemato-biochemical parameters were within normal range. The prolapsed mass was 'Y' shaped and suggestive of involvement of both uterine horns (Fig.1). The prolapsed tissue was oedematous and discoloured with ulceration on some areas. Radiographic examination confirmed the absence of retained fetuses and trans-abdominal sonographic evaluation confirmed the nonexistence of intestine and urinary bladder in the prolapsed mass. Based on the above observations, the condition was diagnosed as complete uterine prolapse.

## Treatment and Discussion

As the owner was not interested in maintaining the breeding potential of the cat and also prolapsed mass was oedematous with ulceration on some areas, an ovariohysterectomy was recommended to avoid complications. The prolapsed mass was cleaned thoroughly with normal saline. Anaesthesia was induced with a combination of xylazine hydrochloride (1 mg/kg, I/M) and ketamine hydrochloride (20 mg/kg, I/M) followed by administration of midazolam (0.1mg/kg, I/V). Anaesthesia was maintained with two per cent isoflurane. Manual

replacement of the everted organ was carried out by using gentle finger pressure (Fig. 2). During ventral midline laparotomy, both ovarian pedicles found to be intact though overstretching of ovarian ligaments was noticed and the ovaries were placed in the dorso-caudal portion of the abdomen. Ovariohysterectomy was done after repositioning of the prolapsed uterus (Fig.3). Abdominal muscles were closed using polygalactin size 0 in simple interrupted pattern. Subcutaneous and intradermal sutures were applied in simple continuous pattern using polygalactine size 2-0. Post-surgical antibiotic with ceftriazone (20mg/kg, I/V) and supportive therapy were continued for a week. Seven days after the operation, the skin sutures were removed and the cat recovered uneventfully.

Prolonged delivery time with increased straining efforts from oversized foetuses owing to small litter size would have predisposed to complete uterine prolapse in the present case. It can be corroborated with the findings of Anderhust (1975) who reported that dystocia and increased straining,

prolonged kitting time, incomplete placental separation, pain or discomfort after parturition as etiological factors for uterine prolapse. Together with protrusion of the everted mass from the vulva, other clinical signs include vaginal discharge, straining, restlessness and pain that may progress to signs associated with urinary incontinence, stranguria, dysuria, shock or toxæmia as also recorded by Feldman and Nelson, 2004. Even though intermittent straining efforts were noticed in the present cat, other clinical signs were mild. While diagnosis can be made by inspection of the prolapsed uterus, radiographic and ultrasonographic examinations are recommended to rule out retained foetuses, or involvement of intestine and urinary bladder in the prolapsed mass as also reported by Deroy *et al.*, 2015. Though the duration of prolapse was extended and oedema with ulceration on some areas of the prolapsed organ was noticed, the successful outcome of the patient in the present case could be attributed to the ovariohysterectomy after reduction of the prolapsed mass.



**Fig. (1)** Complete uterine prolapsed (2) After repositioning (3) Congested and edematous uterus after ovariohysterectomy

## References

- Anderhust, S.R. (1975). Bicornuate uterine prolapse in a cat: a photographic essay. *Vet. Med. Small Anim. Clin.*, **70**: 681.
- Bigliardi, E., Di Ianni, F., Parmigiani, E., Cantoni, A.M. and Bresciani, C. (2014). Complete uterine prolapse without uterine mucosal eversion in a queen. *J. Small. Anim. Pract.*, **55**: 235-237.
- Davidson, A. (2009). Postpartum disorders in the bitch and queen. 81<sup>st</sup> Annual Western Veterinary Conference. Las Vegas, NV, USA, Pp. 239.
- Deroy, C., Bismuth, C. and Carozzo, C. 2015. Management of a complete uterine prolapse in a cat. *J. Feline Med. Surg. Open Rep.*, 2055116915579681: 1-4.
- Feldman, E.C. and Nelson, R.W. (2004). Periparturient diseases. In: Feldman, E.C. and Nelson, R.W. (Eds.), *Canine and feline endocrinology and reproduction*. 3<sup>rd</sup> edn. St Louis, MO: Saunders, Pp. 808.