

# MUCOMETRA IN A PERSIAN CAT- A CASE REPORT

G.S. Shrivya<sup>1</sup>, C. Jayakumar<sup>2</sup>, J. Smitty and R.H. Naveen Kumar

<sup>1</sup>M.V.Sc. Student, <sup>2</sup>Assistant Professor, Department of Animal Reproduction, Gynaecology and Obstetrics, College of Veterinary and Animal Sciences, Mannuthy, Thrissur (Kerala).

[Received: 19.3.2017; Accepted: 25.9.2017]

A pronounced abdominal enlargement was noticed in a strictly indoor maintained one year old Persian cat, with no chance of breeding. On the basis of clinical and ultrasonographic findings, a presumptive diagnosis of mucometra was made. Complete evacuation of uterine contents and recovery with reduction in abdominal distension was noticed following three doses of Prostaglandin F<sub>2</sub>α.

**Key words:** Cat, Mucometra.

**M**ucometra or hydrometra, accumulation of non-inflammatory, clear to cloudy, watery to viscid sterile fluid in uterine lumen is relatively common in cattle and also reported in mare, goat, sow and bitches (Nash *et al.*, 1986). However, the condition rarely occurs in cats. Causes in cats include persistence of corpora lutea, impatency of vulva, vagina, cervix and uterus by congenital abnormalities, neoplasia, inflammation and scarring or accidental ligation (Johnston *et al.*, 2001). Clinical signs of mucometra are not obvious other than abdominal distension, vaginal discharge, some degree of lethargy and macroscopically, the uterine wall is thin with the fluid volume of approximately 500 ml (Johnston *et al.*, 2001). The present clinical report documents a case of mucometra in a queen cat and its successful therapeutic management with PGF<sub>2</sub>α.

## Case history and Observations

A one year old Persian queen cat of body weight 3.5kg was presented to the

University Veterinary Hospital, Kokkalai, Trichur, Kerala with a complaint of progressive distention of abdomen since a week. Animal was active with a normal appetite and no signs of vaginal discharge was evident. The queen cat was kept strictly indoors with no probability for breeding. Clinical examination confirmed a good general body condition, a normal rectal temperature with respiratory and heart rates within normal limits. Palpation revealed a distended and tensed abdomen and physical examination of external genitalia and vaginal cavity did not disclose any anatomical alterations. No remarkable enlargement of the mammary glands was evident. Trans-abdominal sonography evinced anechoic uterine sacculations with an area of 29.74 cm<sup>2</sup> for the largest sac (Fig.1). However, no embryonic or fetal structures were evident within the anechoic uterine sacs. A presumptive diagnosis was made as pyometra or mucometra based on history, clinical and sonographic findings.

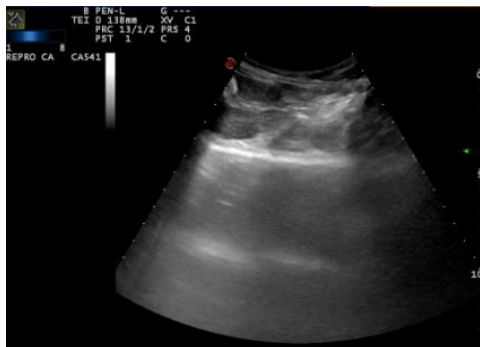


**Fig. 1.** Trans-abdominal sonography evinced anechoic uterine sacculations

## Treatment and Discussion

The queen cat was treated with natural PGF<sub>2</sub>α (Dinoprost tromethamine) at a dose of 0.025mg/kg b.wt, s/c, OD (0.015ml, s/c). Animal was kept under observation for 15 minutes after giving PGF<sub>2</sub>α. No side effect to prostaglandin treatment was observed except for mild panting. Antibiotic treatment was provided for 5 days with Susp.Ceftriaxone @ 20 mg/kg, BID, orally and Tab. Metronidazole @ 20mg/kg, BID, orally. Expulsion of clear to mucoid uterine contents started following two doses of PGF<sub>2</sub>α with a progressive decrease in abdominal distension. The resultant reduction in progesterone concentrations promotes cervical relaxation and a reduction in uterine secretions. Also the

ecbolic action of PGF<sub>2</sub>α facilitates drainage of purulent material from the uterus. Repeated doses of PGF<sub>2</sub>α are required to effect luteolysis of the feline corpus luteum as also reported by Hollinshead and Krekelere (2016). Trans-abdominal sonographic examination confirmed decrease in anechoic area after the second dose of PGF<sub>2</sub>α and after the third dose, complete evacuation of uterine contents was observed (Fig. 2) and an uneventful recovery of the queen cat was noticed. The queen cat exhibited estrous signs within a fortnight after recovery and was bred in that estrus. She was confirmed pregnant one and half month after breeding (Fig. 3) and kitting was documented with two live and one dead kitten.



**Fig.2- Complete evacuation of uterine contents was observed Fig.3- Pregnancy Confirmed**

Clinical, sonographic and evacuated contents of uterus following PGF<sub>2</sub>α treatment confirmed the aseptic fluid accumulation within the uterus associated with the retention of corpus luteum. Progesterone played a major role in the etiology of mucometra as also reported by Polat and Salmanoglu (2007). Queen cats are induced ovulators, but occasionally spontaneous ovulations as also reported by Fontbonne *et al.* (2016). The requisite of corpus luteum for development of mucometra and the queen cat in the present report having been housed alone with no opportunity for breeding signifies the incidence of spontaneous ovulation in felines as also mentioned by Fontbonne *et al.* (2016).

## References

Fontbonne, A., Charbonniera, M., Santosa, N., Maenhoudta, C., Borgesa, P. and

- Leblonda, E. (2016). Ovulation in the domestic cat: induced, spontaneous or both. International Symposium on Canine and Feline Reproduction, ISCFR VIII., June 22-25, 2016, Paris, France. Pp. 55.
- Hollinshead, F. and Krekelere, N. (2016). Pyometra in the queen to spay or not to spay. *J. Feline Med. Surg.*, **18**: 21-33.
- Johnston, S. D., Kustritz, M. V. T. and Olson, P.N.S. (2001). Clinical approach to infertility in bitch. *Canine and Feline Therigenology*. 2<sup>nd</sup> Edn., Saunders, Philadelphia, U.S.A. Pp. 64.
- Nash, A.S., Mccandlish, I.A.P. and Renton, J.P. (1986). Hydrometra in two cats. *J. small Anim. Pract.*, **27**(4): 265-271.
- Polat, B. and Salmanoglu, M. R. (2007). Hydrometra and Endometrial Hyperplasia in a Cat with Follicular Cyst. *J. Appl. Biol. Sci.*, **1**(3): 109-110.