

## Surgical Management of Closed Cervix Pyometra In Queen Cat

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Date of Submission: 01-11-2021

Date of Acceptance: 09-11-2021

### ABSTRACT:

A 2- year-old female cat was presented to Department of Veterinary Gynaecology and obstetrics with a history of distended abdomen since one month. On physical examination distended uterine horns was palpable with normal vital parameters. On ultrasonography revealed presence of anechoic pockets anterior to urinary bladder. Depending on the clinical examination and ultrasonography the case was diagnosed as closed cervix pyometra. As the owner was not intended for further breeding of the pet, henceforth in the Ovario-hysterectomy was opted as treatment of choice than compared to medical management. Ovariohysterectomy was done using propofol as anaesthetic agent and pet has been recovered uneventfully.

**KEY WORDS:** Cat, Closed cervix pyometra, Ultrasonography, Ovario-hysterectomy

### I. INTRODUCTION:

Pyometra is an acute or chronic suppurative inflammation of the uterine wall and clinically relevant problem in intact female cats and dogs (Hollinshead and Krekeler, 2016). The cause of the pyometra in middle-aged or older dogs and cats is mainly by bacterial infection of a progesterone-sensitized uterus (Ragnvi et al., 2014).

Forty percent of the intact cats shows no vaginal discharge or may be absent or goes unnoticed as these species have fastidious cleaning behaviour (Kenny et al., 1987). Around 86.00 percent of queens due to dysregulated host response to septicaemia and toxemia which results in life threatening of the animal (Brady et al.,

2000). Around 57.00 percent mortality was noticed in queens subjected to pyometra (Davidson, 1992).

The animals suffering from pyometra which requires an emergency medical or surgical intervention, the toxemia is completely removed by ovariohysterectomy to increase the survival rate (Ragnvi, 2018). Ovariohysterectomy is recommended on priority in those patients with closed-cervix pyometra (Agudelo, 2005).

### II. HISTORY AND OBSERVATION

Two years female cat was presented to the clinic with a history of gradually increasing the size of abdomen since one month and pet was in estrus 45 days back. On physical examination of the pet was revealed normal temperature (102.3<sup>0</sup> F) with high rate of respiration (35 / min ). On abdominal palpation of the pet, we could feel the distended uterine horns which were clearly evidenced by unevenly distributed abdominal wall (fig.1).

Pet was restrained under dorsal recumbency, and subjected Transabdominal ultrasonography. On ultrasonographic examination revealed hypoechogenic fluid filled multiple uneven pockets anterior to the urinary bladder. The distension of the uterine horns had displaced all other abdominal organs which could barely identified by ultrasonography (fig.2). The above findings from the pet brings diagnosis very close to a condition called pyometra. The haematology and serum biochemistry parameters was within the normal range except there was mild leukocytosis and finally the pet was diagnosed with close cervix pyometra and opted for ovario hysterectomy.



Fig 1. Uneven distended abdomen



Fig 2. Anechoic pockets on USG

### TREATMENT and discussion

Laparotomy was performed using xylazine at the dose rate of 1 mg /kg body weight and propofol for induction at 3 mg /kg body weight and 0.1 mg /kg/min as a maintenance dose. The pus filled uterine horns weighing around 900gm with presence of corpus leuteum on the left ovary which is adhered to the uterine horns (fig.3) was removed by laparotomy. The muscles was sutured using chromic catgut number 2.0 with interlocking suture

pattern and subcutaneous and skin was apposed using simple interrupted suture pattern with nylon number 2.0. The surgical site was dressed and bandaged. Post operatively pet was under fluid therapy with ringers lactate's solution at the dose rate of 50 ml/kg/day and ceftriaxone for seven days at the dose rate of 30 mg / kg body weight. The sutures were removed after ten days of surgery and pet was uneventfully recovered.



Fig 3. 900 gm weighing uterus

Pyometra is the acquired condition occurs in the intact animals or post estrum animals due to elevated levels of progesterone in the luteal phase and invade of the bacterial organism.

The increased sensitivity of the endometrial receptors may enhance invade of the bacteria results in formation of septicaemia and endotoxaemia (Ragnvi, 2018). In coordination with the present case Brady, 2000 have been recorded no other clinical signs exhibited by the pet rather than leucocytosis. The systemic illness may begin

as Sub clinical in felines, were most of the clinical signs cannot be noticed in early stages that can rapidly develops into imminent sepsis or severity results in life threatening or death (Blanco et al., 2018). Ultrasonography was used as diagnosing of the pyometra and it is considered as diagnostic tool for mucometra, hydrometra were the clinical haematobiological parameters are similar with these conditions (Bigliardi, 2004).

This condition may be treated with the medical management using anti prolactins and

antiprogesterones along with prostaglandins. The use of these drugs were recommended when the patient is stable and not critically ill as the action of this drugs may take around 40 hrs (Fieni, 2006). Unlike in canine, feline corpus leuteum is more resistant to the luteolytic effect of the PGF and may refract to the prostaglandins if diagnosed at the early stage of diestrus i.e after 20 days of ovulation, hence higher doses of PGF is required for longer period of time for complete clearance of the pyometra (Hollinshead and Krekeler, 2016). The medical management was advisable only if the pet allowed to be bred in the future. In the present case, the pet is off middle age, owner was not intended to go for further breeding of the pet, hence the ovario-hysterectomy was performed.

### III. CONCLUSION:

Pyometra in cats is considered as an emergency condition and ovariohysterectomy is the treatment of choice in order to avoid further spread of toxins and to save the life of the pet than compared to the medical management during closed cervix pyometra.

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