

## Diagnosis and Emergency Management of Uterine Torsion in a Mudhol dog

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### Abstract

A pregnant Mudhol dog was presented with green coloured, foul smelling discharge from vagina for two days. History revealed mating two months back. Abdominal palpation revealed foetal structure along with crepitation in lower caudal abdomen. Per-vaginal examination was inconclusive for foetal structures. Enlargement of mammary glands with milk secretion has warranted exploratory surgical intervention. Laparotomy was performed through mid-ventral approach under general anesthesia using, Xylazine and Ketamine along with Atropine through intravenous route. Upon exploration complete 360° torsion of right sided uterine horn with severely congested and cyanotic uterine wall was recorded. Uterine torsion was corrected by detorting to its normal position. Hysterectomy was done at body of uterus. Examination of uterine lumen revealed severe necrosis of endometrium of both uterine horns and vitality was compromised. Hence, pan-ovariohysterectomy was performed and laparotomy was closed in routine manner. Post operatively, animal was treated with antibiotics, fluids and analgesics. The dog recovered uneventfully without any post-operative complications.

**Keywords:** Mudhol; pan-ovariohysterectomy; right sided uterine torsion

### Introduction

Uterine torsion is defined as twisting of uterus in various forms and degrees or twisting of uterine horns perpendicular to its long axis (Roberts, 1982). It is very common in cows and buffaloes, but less frequent in horses, sheeps, goats and dogs. In bitches, it is often noticed as life-threatening obstetrical complication (Apaydýn, 2005). Predisposing factors for uterine torsion in bitches include premature uterine contraction in late gestation, lack of uterine tone, insufficient foetal fluids, foetal physical activities, hereditary weakness of ovarian and uterine ligaments, hyperactiveness involving jumping, running and rolling behaviour during excessive play (Kumru *et al.*, 2011; Kacprzak *et al.*, 2014).

### History and Observation

A five year old female Mudhol dog weighing 19 kilograms was presented with history of crossing two months back recorded with green coloured foul smelling discharge from vagina since last two days. Clinical examination revealed dehydrated (7 percent), increased heart and respiratory rate, dull/depressed (Fig. 1), 103.3°F rectal temperature, pale conjunctival mucus membrane and blackish colour discharge from vagina. Abdominal palpation revealed distended tensed and crepitating uterine

horns, while upon per vaginal examination foetal structures were impalpable. However, visible enlargement of mammary glands with milk secretion has warranted radiography/ultrasound examination and exploratory surgical intervention. Ultrasound examination revealed dead foetuses.

### Treatment

Surgical site was prepared aseptically at mid ventral abdomen, general anaesthesia using injection Atropine 0.04 mg/kg b.wt., injection Xylazine 0.5 mg/kg b.wt. and injection Ketamine 5 mg/kg b.wt. were administered with bitch positioned on dorsal recumbency. Abdominal cavity was approached through mid-ventral incision, upon exploration, right horn was found to be twisted completely at its base (360°) (Fig. 2) which was severely congested and uterine wall was cyanotic (Fig. 3). Uterine torsion was corrected by detorting to its normal position. In view of the twisted uterine horn being necrotic and fragile it was decided to perform total Ovario-hysterectomy. Hysterectomy was done at body of the uterus, blackish brown fluid and six dead foetuses along with foetal membranes were removed.

Putrefaction process was started in all foetuses and foul smells suggestive of foetal death 24-48 hours before the intervention. Examination of uterine lumen revealed severe necrosis of endometrium of both uterine horns and vitality was compromised.

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Fig. 1: Dull and recumbent patient



Fig. 2: Complete uterine horn torsion



Fig. 3: Severely congested uterine horn

#### Post-Operative Care

Post-operative treatment was followed for seven days that included inj. Ceftriaxone 500 mg intravenously, inj. Dextrose(5%) intravenously and inj. Meloxicam (Melonex<sup>a</sup>) 0.2 mg/ kg b.wt. intramuscularly. Surgical

a - Brand of Intas Animal Health, Ahmedabad

wound was dressed on alternative days until complete healing. Animal recovered eventually.

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