

canine testicular tumors is rare and is less than 10 percent. Seminoma rarely cause any clinical symptoms except the presence of the mass and some dogs exhibiting pain due to pressure from the growing tumour. The tumors in the present study, was diagnosed as a diffuse type seminoma based on histopathological patterns.

### **Conclusions**

Based on the clinical and microscopical findings, it can be concluded that it was a case of unilateral diffuse seminoma.

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# UNILATERAL UTERINE TORSION IN A DOG AND ITS MANAGEMENT BY OVARIOHYSTERECTOMY

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Uterine torsion is rare and life-threatening condition in a bitch. A four year old, full term pregnant non-descript bitch was presented to University Veterinary Hospital, Kokkalai, KVASU in a shock like state with a blackish vaginal discharge. No fetal parts were palpable on vaginal examination. Palpation revealed a tensed abdomen, trans-abdominal sonography revealed non-viable fetuses with hyper echoic uterine contents. Serosanguinous peritoneal fluid, purplish discoloration of uterus and torsion of the gravid right uterine horn at its base was noticed on laparotomy. An ovariohysterectomy was performed and the bitch made an uneventful recovery.

**Keywords:** Bitch, Ovariohysterectomy, Torsion, Uterus.

Uterine torsion, rotation of the uterus on its longitudinal axis is first reported by Boutrolle in 1766 (Fleming, 1930). It's an unusual and life threatening situation in the bitch. Unilateral torsions are more common than bilateral in canines and the disorder is more common in the pregnant than non pregnant uterus (Shull *et al.*, 1978). Torsion is usually limited to a uterine horn or part of the horn in bitch and queen whereas, in other species, torsion is of the uterine body (Barrand, 2009). The associated problems with canine uterine torsion include dystocia, peritonitis, endotoxic shock and death (Misumi *et al.*, 2000). This report describes unilateral uterine torsion in a non-descript bitch and its successful management by ovariohysterectomy.

## Case History and Observations

A four year old, pleuriparous, non-descript bitch, bred 64 days before was presented to small animal obstetrical ward of University Veterinary Hospital, Kokkalai, KVASU with the history of inappetence and recumbence since two days, with futile straining efforts the previous day. The recumbent bitch was dull and the temperature was 97.7<sup>0</sup>F. Respiration and pulse rate was also in the lower range?????. Vaginal examination revealed slight blackish discharge, but had no reflex straining to feathering of the vagina. Abdominal palpation revealed tense and distended uterine horns, but appreciation of the fetal skeleton was not

obvious. Trans-abdominal sonography revealed non-viable fetuses with hyper-echoic uterine contents. Though the clinical signs, vaginal examination and sonographic findings were suggestive of obstructive dystocia, the precise cause of obstruction was not determined. Taking into consideration the bad health condition of the dog, delayed nature of the problem, lack of feathering response and blackish vaginal discharge, it was decided to perform an emergency cesarean section.

## Treatment and Discussion

Under anesthetic induction with propofol @ 5 mg/kg and 2% isoflurane maintenance, laparotomy was performed through a right flank incision. Following laparotomy, more of serosanguinous peritoneal fluid and purplish discoloration of uterus was observed. Careful examination revealed torsion of the gravid right uterine horn at its base (Fig. 1). Being a delayed case with emphysematous fetuses along with cyanosis and necrosis of the twisted uterus, an ovario-hysterectomy was performed. Thorough cleansing of the peritoneal cavity was carried out with normal saline and further, the laparotomy wound closed under standard surgical procedures. The removed uterus revealed five dead, decomposed fetuses and haematometra (Fig. 2). Post surgical antibiotic treatment with Ceftriazone- tazobactam @ 15 mg/ kg b.wt, Metronidazole @ 20 mg/kg b.wt and supportive treatments with Ringers lactate @

10 ml/ kg b.wt were provided for five days and the dog made an uneventful recovery.

An uneven number of fetuses in two horns along with hyperactive nature of the



**Fig. 1. Torsion of the horn**

case as the base of the right horn was involved in torsion which would have prevented the delivery of fetuses even from non rotated uterine horn. The severity of clinical signs may be dependent on the location of twist relative to major vascular supply, duration of torsion and extent of vascular compromise. Life threatening complications should be expected in torsion of gravid uterus which warrants both medical and surgical management. Total ovariohysterectomy is recommended as the treatment of choice in torsion induced uterine necrosis terminating the animals' reproductive ability. The uneventful recovery of the critically ill bitch in this report could be the outcome of timely surgical intervention and proper post operative treatments.

In conclusion, ovariohysterectomy without correction of torsion has been recommended in torsion of the gravid uterus with necrosis to prevent systemic effects associated with release of bacteria and bacterial toxins. A successful outcome to this life-threatening condition after ovariohysterectomy can be assured only with

bitch would have contributed to uterine torsion in the present case. However, no births were reported in this



**Fig.2. Haematometra**

appropriate postoperative treatments. Dystocic dogs lacking clear evidence of obstructive dystocia on radiography and in a shock like state should be suspected for uterine torsion and an exploratory laparotomy is warranted for a confirmatory diagnosis.

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