Management of Unilateral Uterine Torsion in a Bitch

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Abstract
A 3 year-old Germen Shepherd bitch was presented with ataxia and brownish vaginal discharge. Abdominal ultrasound revealed presence of fetal skeleton with feeble heartbeat. Subsequent exploratory laparotomy revealed unilateral uterine torsion. Recovery following ovario-hysterectomy was uneventful.

Keywords: Bitch; laparotomy; uterine torsion; vaginal discharge

Introduction
Twisting of uterus on its own long axis results in torsion of uterus and is occasionally seen in canines (Roberts, 1971). Either uterine horn can twist clockwise or anti-clockwise about its own axis or around the other horn or both horns may twist simultaneously (Shull et al., 1978 and Stone et al., 1993). Disorders associated with canine uterine torsion include dystocia, pyometra, septic shock, peritonitis, coagulopathy and death (Biddle and Macintire, 2000 and Misumi et al., 2000). This case report describes successful management of unilateral uterine torsion in a gravid Germen Shepherd bitch.

Clinical Observation
A 3 year old Germen Shepherd bitch mated two months back was brought with history of anorexia, ataxia and brownish vaginal discharge for past 24 hrs. The bitch appeared clinically dull and depressed. On vaginal examination, blackish discharge was noticed while, ultrasound examination revealed presence of fetus with feeble heart beat.

Diagnosis and Treatment
On basis of clinical observation, vaginal and ultrasound examination, the bitch was found to be in process of whelping. As health status of bitch was poor, it was decided to perform caesarean section. Following laparotomy and exposure of uterus, left horn was cyanotic and necrotic, while right horn was normal. Careful examination revealed that left horn was found to be twisted at its base (>180°) (Fig.1). A dead fetus was removed from left horn, while two live fetuses were removed from right horn. Due to necrotic condition of uterus, ovario-hysterectomy was performed without correcting torsion and post operative care with antibiotic (inj Cefotaxime @10 mg per kg b.wt.) and supportive fluid (inj Ringers lactate @10 ml per kg b.wt.) was given for five days. The bitch recovered uneventfully.

Results and Discussion
Uterine torsion has been reported both in gravid (Nagaraja et al., 1997) and non-gravid (Misumi et al., 2000) bitches, but occurrence of this disorder is higher in gravid than non-gravid uterus (Biddle and Macintire, 2000). In this case too, gravid horn was twisted at caudal portion of uterine horn. Similar finding was also reported by Raut et al. (2008). The incidence in gravid bitches during late or early gestation suggested that either uterine weight or contractions may be an important

Fig.1: Twisting of uterine horn (>180°) at its base
etiological factor and patient size did not appear to be associated with increased risk of uterine torsion. Other factors associated with occurrence of uterine torsion include late stage pregnancy, labour, ecbolic therapy, conditions resulting in fluid distension of uterus (eg. cystic endometrial hyperplasia-pyometra complex, haematometra) and uterine mass lesions. In the present case, an unequal distribution of fetal number between both uterine horns along with hyperactive movements of bitch might have caused uterine instability and resulted in torsion of uterus. Chamber et al. (2011) reported that location of twisted component relative to major vascular supply, duration of torsion and extent of vascular compromise may be more relevant factors in progression and severity of clinical signs. Uterine torsion should be included as differential diagnosis for gravid and non-gravid bitches presented with vulval discharge, regardless of age. Dogs with uterine torsion may be presented with life threatening systemic derangements requiring prompt medical and surgical intervention. The prognosis following ovario-hysterectomy, without prior correction of torsion, is expected to be good in absence of generalised peritonitis, systemic inflammatory response or disseminated intra vascular coagulation. Ovario-hysterectomy without correction of torsion has been recommended to prevent systemic effects associated with release of bacteria, bacterial toxins and other cardiovascular depressant compounds present within a potentially devitalised hollow viscus organ (Jutkowitz, 2005). Thus, signs of sudden discomfort around time of whelping should always be suspected for uterine torsion in dogs and an exploratory laparotomy is indicated to make a definitive diagnosis.

References

LUVAS and PNB collaborate to train farmers
Lala Lajpat Rai University of Veterinary and Animal Sciences (LUVAS), Hisar and Farmers Training Centre, Punjab National Bank (PNB), Saccha Khera, Dist Jind, Haryana signed Memorandum of Understanding (MOU) for the year 2014-15 for jointly training the farmers of Haryana and updating theme with better know how in the field of dairy, poultry and pig farming and value addition for milk and meat products.