

# Management of Unusual Case of Complete Uterine Prolapse in a Bitch

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**Abstract:** *In the present case, complete uterine prolapse in a 3 year cross breed bitch was presented with a eviscerated uterus through the vulva, occurred 4 - 5 hrs after whelping. The bitch delivered four 4 puppies within 18 hours duration's. On careful examination, the prolapsed uterine horns were everted into the uterine body and cervix uteri. The prolapse mass was manually reduced aseptically and treated therapeutically. Uneventful recovery was noticed after 10 days.*

**Keywords:** Bitch, prolaps uterus

## 1. Introduction

Uterine prolapse is a relatively uncommon complication of parturition, occurred rarely in dogs (Jadhao et al 2020) and infrequently in cats with the incidence rate as low as 0.03% (Deroy et al 2015). The cervico - vaginal prolapse (Johnston et al 2001) and vaginal prolapse (Williams et al 2005) are relative more frequently reported for bitch during peri - parturient period as the concentration of serum progesterone declines and the concentration of serum estrogen increases (Konig et al 2004)., Postulated etiologies for prolapsed include prolonged labour, difficulty in birth due to foetal oversize, large litter, and laxity of uterine horns (Morrow 1996). Prolapse of uterus usually occurs in bitches which had several whelping, but the condition could also be encountered during the first whelping (Neilssen 2016). In uterine prolapse, one or both uterine horn are distally displaced either partially or completely through extremely dilated cervix (Sathiamoorthy et al 2013). The prognosis and severity of the condition is dependent on the duration of the prolapsed organ (Neilssen 2016). The preferred treatment of prolapse of uterine horn is manual repositioning (Neilssen 2015) or surgery (Payan - Carreira et al 2012) but the choice of therapy is determined by condition of animals, uterine health (Neilssen 2016) and the choice of owner to retain future breeding. In the present case, prolapse of uterus in a female dog was successfully managed by retention and therapeutic measures were resorted.

## 2. Case History and Clinical Findings

A 3 Year old non - descript female dog was brought to the Veterinary Clinical Complex of the CVAS, Bikaner with a history of sudden eversion of a large flaccid reddish mass from the vulva subsequent to normal delivery of 4 live pups. The female dog showed moderate rectal and vaginal straining due to tenesmus.

On clinical examination, the subnormal temperature 99.3°F, and low pulse approx 50 per min. and respiration 9 - 10 per min. were recorded. The female dog animal was able to stand and walk. Approximately 12 cm of everted uterus was protruded from the vulva. The prolapsed mass was washed with mild antiseptic solution and, identified as uterine body and horns. The prolapsed mass was severely swollen and

edematous hanged up to the level of hock joint and had severe pain.

## 3. Treatment

The female dog was sedated with xylazine hydrochloride (1mg/kg IM) (Indian immunological limited). The distended urinary bladder was catharized to remove urine. The prolapsed uterus was cleaned with normal saline and 2% betadine solution. After cleaning of oedema was relieved by application ice cubes and cleaned with cold water. Lignocaine jelly 2% and Gentamicin ointment were applied to the prolapse uterus in order to reduce pain and preventing infection after reposition. The prolapsed mass was reposed by applying pressure with the help of palm and modified odified Buhner's sutures using nylon were applied to prevent further reoccurrence. The female dog was then administered with inj. tetanus toxoid 1 ml intramuscular, inj. Calcium gluconate 50 mg/kg slow by intravenous injection with careful monitoring of the heart rate, inj. Oxytocin 2ml intramuscular, inj. Dextrose 5% as dose rate 20 ml/kg on first day and Inj. Ceftriaxone+Tazobactam 281.25mg and inj. Meloxicam 2ml BID for 5 days.

On 24 h post treatment, the female dog was alert with normal physiological parameters and normal being normal feed.

## 4. Discussion

Although, the actual cause of prolapse is unknown in female dogs, but excessive relaxation and stretching of pelvic musculature (Benesch and Wright 2001) severe tenesmus and uterine disease, rough handling during parturition (Shambhavi et al 2020), genetic predisposition and aberrant connective tissue (CT) metabolism (Ozyurtlu and Kaya 2005) have been reported. Constipation, forced separation during mating and size incompatibility between breeding animals can also lead to true vaginal prolapse. (Markandeya et al 2004 and Purswell 2005). The deficiency of calcium and phosphorus and the increasing intra - abdominal pressure during parturition along with excessive relaxation of pelvic ligaments and vaginal muscles are also considered to be the cause of the prolapsed (Das et al and Talukdar et al). In the present case, he prolapse of the uterus might have

occurred in the present case due to excessive straining during and after whelping. The bitch was hit by a wooden stick and probably the trauma inflicted at the time of whelping might also have accounted for the prolapse. Varying clinical signs of uterine prolapse including straining, tenesmus, pain, protrusion of partial or complete uterus from vulva have been reported (Feldman and Nelson 2004). Which may progress to toxemia and shock (Stone 1985) or can produce life threatening situation due to event of severe bleeding into abdominal cavity (Sathiamoorthy et al 2013). In the present case, the local hemorrhages noticed might be the result of ruptured blood vessels of the uterine wall. The decision of the treatment of prolapse is usually taken based on the further breeding life of the animals (Agaoglu et al 2012). The treatment of choice in cases of uterine prolapse is usually surgery especially in cases involving complete eversion of one uterine horn. However, in the present case the protruded mass was reposed by manual reduction and of the prolapse as described previously. The vulvar sutures were removed after 5 days and the bitch showed a speedy and uneventful recovery. It was concluded the complete uterine prolapse was successfully managed by manual reposition.

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**Plate (A):** Uterine prolapse (with both horn) in bitch (B) Bitch after treatment