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Shambhavi

Department of Veterinary
Gynaecology & Obstetrics
College of Veterinary and Animal
Sciences, Uttar Pradesh, India

Aman Shrivastava

Department of Veterinary
Gynaecology & Obstetrics
College of Veterinary and Animal
Sciences, Uttar Pradesh, India

Harshit Saroha

Department of Veterinary
Gynaecology & Obstetrics
College of Veterinary and Animal
Sciences, Uttar Pradesh, India

Atul Kumar Verma

Department of Veterinary
Gynaecology & Obstetrics
College of Veterinary and Animal
Sciences, Uttar Pradesh, India

Akhil Patel

Department of Veterinary
Gynaecology & Obstetrics
College of Veterinary and Animal
Sciences, Uttar Pradesh, India

Ashutosh Tripathi

Department of Veterinary
Gynaecology & Obstetrics
College of Veterinary and Animal
Sciences, Uttar Pradesh, India

MK Shukla

Sardar Vallabhbhai Patel
University of Agriculture and
Technology, Modipuram,
Meerut, Uttar Pradesh, India

Vijay Singh

Department of Veterinary
Gynaecology & Obstetrics
College of Veterinary and Animal
Sciences, Uttar Pradesh, India

Corresponding Author:**MK Shukla**

Sardar Vallabhbhai Patel
University of Agriculture and
Technology, Modipuram,
Meerut, Uttar Pradesh, India

Management of unusual case of partial uterine prolapse in canine

Shambhavi, Aman Shrivastava, Harshit Saroha, Atul Kumar Verma, Akhil Patel, Ashutosh Tripathi, MK Shukla and Vijay Singh

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Abstract

Prolapse of uterus is a very rarely encountered in dogs. The management / treatments are considered keeping in view whether the female dog is to be bred in future or not. In the present case partial uterine prolapse was presented in 3 year old mongrel female dog. The female dog was presented with a history of uterine mass protruding out of vulvar lips, which was noticed just after completion of whelping. On careful examination the mass, the protruded mass was observed to be uterine body, which was partially protruding out of vulva. The prolapse mass was manually reduced and treated therapeutically resulting in uneventful recovery of the female dog.

Keywords: Female dog, partial uterine prolapse, retain breeding ability, manual reduction

Introduction

Though cervico vaginal prolapse^[1] and vaginal prolapse^[2] is often encountered in dogs near parturition as the concentration of serum progesterone declines and the concentration of serum estrogen increases^[1, 3], but the incidence of uterine or even partial uterine prolapse is rare in dogs with the incidence rate as low as 0.03%^[4]. The other important causes include prolonged labor, difficulty in birth possibly because of fetal oversize, large litter, and laxity of uterine horns^[4]. Prolapse of uterus usually occurs in dogs which has had several whelping, but the condition can also be encountered during the first whelping. Complete exteriorization of cervix occurs in complete vaginal prolapse but not with partial prolapse. In uterine prolapse one or both uterine horn either completely or partially exteriorized through extremely dilated cervix^[5]. The prognosis and severity of the condition is dependent on the duration of the prolapse. The most preferred treatment of prolapse of uterine horn is surgery^[6] but the choice of therapy is determined by the fact whether or not the owner wants to retain the future breeding life of the dog^[7]. In the present case since there was only partial prolapse of uterus and owner was willing to use the female dog for further breeding, replacement of uterus followed by retention and therapeutic measures was resorted.

Case history and clinical findings

The owner reported that the female dog has delivered pups 2 days back. After whelping it started showing sudden expulsion of a large flaccid reddish mass from the vulva. The owner on further enquiry told that this prolapse occurred during delivery of the last fetus as someone stuck her by a plank. This was followed by vaginal bleeding and expulsion of averted uterus through vulva. The owner waited for the mass to cure itself as the female dog was a stray animal but when the mass got enlarged and female dog was unable to walk then he presented it to Veterinary Clinical Complex, Meerut.

General clinical examination of the animals revealed that the animal was otherwise healthy and had optimum health. The temperature, pulse and respiration of the animal were well within normal range defined for the species. On being presented to the hospital the animal was able to stand and walk. The female dog was showing moderate rectal and vaginal straining due to tenesmus. Approximately 10-12 cm of averted uterus was protruding through the vulva. On careful examination after washing the prolapsed mass with mild antiseptic solution, it was identified as uterine body. It was severely swollen and edematous and some level of necrosis was also observed. The prolapse was hanging upto hock joint and severe pain in bitch was noted. On further assessment it was diagnosed as partial uterine prolapse.



Fig 1: Partial uterine prolapse in female dog

Materials and Methods

The female dog was anesthetized with inj. Xylazine @ 1 mg/kg body weight followed by inj. Ketamine @ 8 mg/kg body weight. The urinary bladder was distended and hence it was catheterized to drain urine. The cervico vaginal mass was soiled and edematous; therefore, it was cleaned with normal saline and betadine solution 2%. After cleaning the prolapse mass was applied with saturated sugar solution in order to reduce its edema. After the edema was reduced to the extent that organ can be reposed, it was again cleaned with cold water. Lignocaine jelly 2% and betadine ointment were then applied to the prolapse mass in order to reduce pain and chances of infection after reposition respectively. Then by applying bilateral pressure with the help of palm the prolapsed mass was reposed. Modified Buhner's sutures using nylon as suture material were then applied to prevent its reoccurrence. The female dog was administered with tetanus toxoid, Inj. Intceptazo 250 mg and inj. Melonex BID for 5 days.

Result and Discussion

The female dog was examined again the day after uterus reposition and was found to be alert with all physiological parameters being normal. On further examination lochia discharge was also observed. Owner reported that the female dog was healthy and consuming food normally after 6 days of the treatment. The actual cause of prolapse is unknown in female dogs but it may be due to excessive relaxation and stretching of pelvic musculature [8], severe tenesmus and uterine disease, rough handling during parturition, genetic predisposition and aberrant connective tissue (CT) metabolism [9]. Constipation, forced separation during mating and size incompatibility between breeding animals can also lead to true vaginal prolapse [10, 11]. Vaginal prolapse usually occur during high serum estrogen concentration and produces grade 3 vaginal hyperplasia also. It is also connected with weakness of the perivulvar tissue of the bitch. 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 prolapse [12, 13]. Some veterinarians have reported that age, breed and parity did not influence the incidence of uterine prolapse [14]. In the present case local hemorrhages and necrosis was observed in the uterus which may be due to rupture of blood vessels. The prolapse of the uterus might have occurred in the present case due to excessive straining during and after whelping. The trauma inflicted at the time of whelping might also have accounted for the prolapse. Veterinarians have reported varying clinical signs in cases of uterine prolapse including straining, tenesmus, pain, protrusion of partial or complete uterus from vulva [15]. These signs may progress to clinical signs of shock

and toxemia [16] or can produce life threatening situation due to event of severe bleeding into abdominal cavity [5]. In the case under report the signs tough signs of toxemia were absent but the female dog showed signs of restlessness, straining, tenesmus and partial protrusion of the uterus. The decision of the treatment of prolapse is usually taken based on the further breeding life of the animals [7]. The treatment of choice in cases of uterine prolapse is usually surgery especially in cases involving complete eversion of one uterine horn [6]. Since in the present case the protruded mass had no lacerations and looked relatively fresh except some small hemorrhage, decision for reduction and manual reposition of prolapse was taken. The same reposition technique has been used earlier by various workers [5, 17]. Sutures were removed after 15 days and the bitch showed a speedy and uneventful recovery. The cases of prolapse can be treated by taking corrective gynecological interventions and by giving supportive treatment [9]. In the present case the causative factor for the prolapsed might be the excessive straining followed by trauma inflicted during parturition. Besides, low plane of nutrition might also have acted as predisposing factor.

Conclusion

Complete or partial uterine prolapse is an extremely rare condition in female dogs. The present case of partial uterine prolapse was managed with corrective obstetrical interventions and therapeutic measures which were effective and resulted in uneventful recovery of the animal.

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