MAKU J. Health Sci. Inst. 2023, 11(2): 275-278.
doi: 10.24998/maeusabed.1273935

Mehmet Akif Ersoy University
Journal of Health Sciences Institute
http://dergipark.gov.tr/maeusabed

Case Report / Olgu Sunumu

The Case of Uterine Prolapse in Golden Retriver Bitch - Vulval SutureTechnique

Golden Retriver Irkı Dişi Köpkte Prolapsus Uteri Olgusu - Vulval Sütür Tekniği

Gökhan BOZKURT[1]*, Atakan CORTU [1], İsmail AKAR[2], Mehmet YILDIZ[1]

[1]Burdur Mehmet Akif Ersoy University, Faculty of Veterinary Medicine, Department of Obstetrics and Gynecology, Burdur, Türkiye
[2] Burdur Mehmet Akif Ersoy University, Institute of Health Sciences, Department of Veterinary Obstetrics and Gynecology, Burdur, Turkiye

Abstract: This case report describes the treatment of uterine prolapse in a bitch with a vulval suture technique after the rejection of the uterine. A two-year-old Golden Retriever bitch was brought in with the complaint of protruded uterine after dystocia. The edema in the uterus was removed by applying pressure with the help of a bandage in the direction of blood circulation. The outer part was lubricated with paraffin liquid and put inside. After this process, a vulval suture procedure was applied to the upper third of the vulva. After the treatment, it was observed that the uterine prolapse did not recur and the patient recovered. It was learned that the bitch became pregnant in the next sexual period.

Keywords: Bitch, Dystocia, Uterine prolapse.

Öz: Bu vaka raporu, dişi bir köpekte uterusun reddedilmesinden sonra vulval ligatür tekniği ile prolapsus uterinin tedavisini anlatmaktadır. İki yaşında Golden Retriever ırkı köpek güç doğum sonrası prolapsus uteri şikayeti ile getirildi. Kan dolaşımı yönünde bir sargı bezi yardımıyla basınç uygulanarak uterustaki ödem alındı. Dışarıdaki kısım parafin likit ile kayganlaştırılarak içeriye reddedildi. Bu işlemin ardından vulvanın üst 1/3'lük kısmına vulval ligatür işlemi uygulandı. Tedavi sonrasında prolapsus uterinin tekrarlamadığı ve hastanın iyileştiği görüldü. Bir sonraki seksüel periyotta köpeğin gebe kaldığı öğrenildi.

Anahtar Kelimeler: Dişi köpek, Güç doğum, Prolapsus uteri.

*Corresponding author : Gökhan BOZKURT e-mail : gokhanbozkurt325@gmail.com
Geliş tarihi / Received : 30.03.2023 Kabul tarihi / Accepted: 11.06.2023

Introduction

Uterine prolapse is the protrusion of one or both uterine horns together with the corpus uteri, passing through the cervix uteri and out of the vagina (Wood, 1986). This disease, which is frequently observed as a complication of delivery in cows, sheep, and mares, has an incidence of 0.03% in bitches. Uterine inertia, dystocia, and oversized fetus are among the causes of this disease (Jackson, 2004; Miesner et al, 2008). The prognosis of the disease and the severity of the clinical findings generally depend on the time since the prolapse and the preservation of the integrity of the uterine arteries. Therefore, the disease may have no symptoms other than uterine prolapse; severe symptoms such as dehydration, hypothermia, and shock may also be observed. Ovariohysterectomy is usually performed for treatment purposes (Payan-Carreira et al, 2012).

The aim of this case report is to modify the vulva suture technique used in prolapsed vagina and uterine cases in ruminants to bitches and thus preserve fertility without the need for ovariohysterectomy.

To cite this article: BOZKURT G, CORTU A, AKAR İ, YILDIZ M. (2023). The Case of Uterine Prolapse in Golden Retriver Birch – Vulvar Suture Technique. MAKU J. Health Sci. Inst., 11(2), 275-278.

ISSN: 2148-2837/ MAKU J. Health Sci. Inst.

Materials and Methods

A two-year-old, 16 kg Golden Retriever bitch was brought to Burdur Mehmet Akif Ersoy University, Veterinary Faculty, Animal Hospital with the complaint of postpartum uterine prolapse after delivery of a stillborn puppy a day before (Figure 1A). According to the anamnesis, it was learned that the patient whelped for the first time and the delivery took longer than normal. In the physical examination, it was seen that there was no necrotic area in the uterus. Detailed information about the treatment procedure was given to the patient owner and an informed consent form was signed. Rectal body temperature, heart rate, and respiratory rate were within normal values. In the haematologic examination, it was observed that all parameters were within the reference range (Table 1). It was determined that the uterine corpus and right uterine horn were prolobsed. It was observed that the uterine was edematous and congested. There were no puppies in the uterus during the abdominal ultrasound examination.

Table 1. Haematologic and physical examination findings.

Parameter	Measured	Reference Value
WBC ($x10^9$/L)	9.35	6-17
RBC ($x10^{12}$/L)	7.32	5.5-8.5
HGB (g/dL)	16.2	12-18
HCT	50.10	37-55
MCV (fL)	62	60-77
PLT ($x10^9$/L)	425	200-500
Temperature (^{0}C)	38.5	37.5-39
Heart rate (bmp)	110	80-120
Respiratory rate (rpm)	26	20-40

White blood cell (WBC), red blood cell (RBC), hemoglobin (HGB), hematocrit (HCT), mean corpuscular volume (MCV), platelet count (PLT).

Treatment in uterine prolapse cases includes medical and surgical treatment options according to the patient's condition and preference (Hedlund, 2007; Agaoglu et al, 2007). In this case, because the owner did not want to lose its fertility and there was no permanent damage to the uterine, it was preferred to replace it after the edema in the uterine was removed. Anesthesia was induced with propofol (Propofol®, Polifarma, Turkey) at a dose of 5.5 mg/kg. Then, endotracheal intubation and standard anesthesia monitoring (ECG, blood pressure, and saturation) were performed. Anesthesia was maintained with sevoflurane (Sevorane®, Abbvie, USA). Initially, the uterine was cleaned with 10% diluted povidone-iodine and wrapped with a bandage after making sure that there was no other abdominal organ in it. Massage was performed with 20% mannitol (Mannitol, Polifarma, Turkey) to reduce edema (Figure 1B). After the edema was reduced, massage was performed with paraffin liquid, and the uterine was replaced (Figure 1C). A horizontal mattress ligature was applied to the upper third of the vulva by passing absorbable sutures through the infusion set rubber cut about 3 cm in length (Figure 1D). Thus, it was aimed to reduce the suture pressure applied to the vulva. In addition, this method provided less irritation of the vulva.

To cite this article: BOZKURT G, CORTU A, AKAR İ, YILDIZ M. (2023). The Case of Uterine Prolapse in Golden Retriver Birch – Vulvar Suture Technique. MAKU J. Health Sci. Inst., 11(2), 275-278.

ISSN: 2148-2837/ MAKU J. Health Sci. Inst.

Postoperatively, 20 mg/kg amoxicillin-clavulanic acid (Synulox®, Zoetis, Germany) was administered for 5 days and 0.2 mg/kg meloxicam (Meloxicam®, Bavet, Turkey) was administered for 2 days. In the clinical and ultrasound examination performed 1 week after the treatment, it was observed that the uterus was in its normal anatomical position. The suture was removed. No pathological changes were found in the vulva. It was learned that the bitch mated in the next cycle, became pregnant, and whelped healthy puppies.

Figure 1. Uterine prolapse (A), right uterine horn (a), left uterine horn (b), corpus uteri (c), vagina (d). Use of hypertonic solution and pressure to remove uterine edema (B). Lubricating with paraffin liquid (C). Vulval suture procedure to the upper third of the vulva (D).

Discussion

Causes of uterine prolapse include prolonged labor, uterine inertia, dystocia and oversized fetus (Jackson, 2004). In this case, it is thought that the dystocia may have caused the uterine prolapse. Uterine prolapse is a disease that can result in the death of the patient, especially when the integrity of the uterine arteries is disrupted. Therefore, the uterine should be carefully examined for bleeding and rupture. Symptoms such as ischemia, hemorrhage, necrotic areas in the uterine, poor general condition of the patient, and shock are signs of rupture in the uterine arteries (Payan-Carreira et al, 2012). Jadhao et al. (2020) reported that a bitch with uterine prolapse had a general condition failure and some of the haematologic parameters were not at reference values (Jadhao et al, 2020). In this case, the general condition was normal and haematologic parameters were within reference ranges. This situation may be associated with the patient's young age and the fact that a short time has passed since the prolapse. In ruminants, edema due to uterine prolapse is reduced by massaging with hypertonic solutions. Moreover, the ligature applied to the vagina after prolapse vagina rejection is passed through a rubber and soft material so that it does not damage the vagina (Miesner et al, 2008). This technique was created by modifying the vulva suture technique used in prolapse vagina cases in the ruminants to bitches. A similar suture technique was used in a case of prolapsed uteri in a bithc (Jadjo et al (2020). In the presented case, the edema was reduced by massaging the uterine with 20% mannitol hypertonic solution and then it was lubricated with paraffin liquid and rejected. After the uterine was placed, the sutures were passed through the rubber infusion set, which was cut about 3 cm in length, so that the ligature material would not damage the vulva. It was thought that the vulval suture technique would not prevent prolapse uteri in bitches, but it could prevent

To cite this article: BOZKURT G, CORTU A, AKAR İ, YILDIZ M. (2023). The Case of Uterine Prolapse in Golden Retriver Birch – Vulvar Suture Technique. MAKU J. Health Sci. Inst., 11(2), 275-278.

ISSN: 2148-2837/ MAKU J. Health Sci. Inst.

injuries that may occur in the uterus in recurrent cases.

Conclusions

In conclusion, it was revealed that the vulval suture technique is a convenient method in the treatment of uterine prolapse in bitches. However, more cases are needed to determine whether the method is practicable or not.

Acknowledgements

The authors are grateful to Burdur Mehmet Akif Ersoy University, Veterinary Faculty, Animal Hospital for all the facilities to achieve this study.

Conflict of Interest

There is no conflict of interest.

References

Agaoglu AR., Kocamuftuoglu M., Cetin Y., Celik MT., 2012. Uterine prolapse in a Pointer bitch. Eurasian Journal of Veterinary Science 28, 182-184.

Hedlund CS., 2007. Surgery of the reproductive and genital systems. In: Fossum TW, Hedlund CS, Johnson AL, Schulz KS, Seim HB, Willard MD, Bahr A, Carroll GL, editors. Small Animal Surgery. Missouri: Elsevier, pp. 702-77.

Jackson PGG., 2004. Post-parturient problems in the bitch and cat. In: Jackson PGG, editors. Handbook of Veterinary Obstetrics. Philadelphia: WB. Saunders, pp 233–237.

Jadhao A., Ingole RS., Surjagade SR., Bansod A., Ingawle MV., 2020. Uterine prolapse in bitch: A case report. Journal of Entomology and Zoology Studies 8(3), 1282-1284.

Miesner, M. D., Anderson DE., 2008. Management of uterine and vaginal prolapse in the bovine. Veterinary Clinics of North America: Food Animal Practice 24(2), 409–419. Doi: 10.1016/j.cvfa.2008.02.008

Payan-Carreira R., Albuquerque C., Abreu H., Maltez L., 2012. Uterine prolapse with associated rupture in a Podengo bitch. Reproduction in domestic animals 47(4), 51-55. Doi: 10.1111/j.1439-0531.2011.01944.x.

Wood DS., 1986. Current Therapy in Theriogenology. In: Diagnosis, Treatment, and Prevention of Reproductive Diseases in Small and Large Animals. Morrow DA, editors. Philadelphia:, WB. Saunders, pp 510-51 .