Tropical Veterinarian
International Journal Devoted to All Aspects of Health and Diseases of Animals in the Tropics

Case Report

Tropical Vet 43 (1) Pages 59 – 64, 2025.

Post-parturient uterine prolapse in a Yankassa ewe presented to the Veterinary Teaching Hospital, University of Ibadan, Ibadan

Osunkoya, D*., Agbugba, L. C., Bolaji, O. F., Ajala, O. O. and Oyeyemi, M. O.

Department of Theriogenology, University of Ibadan, Ibadan, Nigeria.

Corresponding author
*Dr Osunkoya Dideolu, E-mail: dideoluosunkoya@gmail.com

Running head: Uterine prolapse in a Yankassa ewe

Abstract

A two (2) years old Yankassa ewe, weighing 25 kg was presented with history of having a protruding tissue from the vulva after lambing of less than 12 hours duration to the University of Ibadan Veterinary Teaching Hospital, Ibadan. On close examination, the uterus was seen protruding from the vulva with no placenta and no laceration. Uterine prolapse was diagnosed following the observation of exposed caruncles. Management of the uterine prolapse was by size reduction and replacement. Size reduction of the prolapsed uterus was achieved using sugar solution and cold pack after the organ had been properly rinsed with clean water containing the antiseptic – Dettol®. On achieving size reduction, the organ was replaced back to its normal anatomical position in the pelvic cavity beginning from the portion closest to the vulva lips. Epidural anaesthetic was not given because there were no visible signs of straining prior to and during uterine replacement. Colostrum was expressed from the dam and was fed to the lamb. Antibiotic therapy was instituted by giving Amoxycillin 15mg/kg intramuscularly stat; and orally for (5) days consecutively and Oxytocin 10 IU intramuscularly to aid uterine involution. The dam recovered successfully. This shows that timely presentation and effective management of uterine prolapse cases could lead to a good prognosis. We therefore advocate that livestock owners should always present reproductive problems early for proper intervention by Theriogenologists.

Key words: Post-parturient**,** Uterine, Prolapse, Yankassa, Ewe

Introduction

Prolapse of the uterus is a common complication of the third stage labour in the ewe (Noakes *et al., 2*001). It is an obstetrical complication that occurs most commonly immediately or few hours after parturition

when the cervix is open and the uterus lacks tone leading to the protrusion of the uterus from the vulva with mucosa exposed (Hanie, 2006). Multiparous ewes have been observed to be more prone to uterine prolapse than nulliparous ewes. Uterine prolapse affects approximately 0.1% of ewes during the lambing period. The prolapse that occurs for more than 24 hours post-partum is uncommon and is usually complicated by partial closure of the cervix, making replacement difficult. It may also occur immediately after delivery of the foetus, after an interval of 12 to 48 hour or as a consequence of prolonged second stage labour (Fubini and Ducharme, 2006: McCarter, 2019).

Common predisposing factors leading to uterine prolapse include excessive estrogen content in the feed, hypocalcemia, hypomagnesaemia, parity, sex, foetal oversize, dystocia, retained fetal membranes, chronic diseases and paresis (Noakes *et al., 2*001: Roberts, 2004; Kumar, 2005). Delayed treatment of uterine prolapse could result to maternal mortality as a result of internal bleeding (Noakes *et al.,*2009). Factors that affect the success of recovery include age of animal, timing of presentation of case, health status of the animal, parity and severity of the condition.

Uterine prolapse is more common in the cow and ewe, less common in the doe and rare in the mare, and occurs when the process of parturition is hindered by physical or functional defects (Wachida and Kisani, 2011; Srunivas *et al.,* 2007). Generally, hypocalcaemia results in myometrial fatigue and delays uterine involution, both of which could predispose to uterine prolapse in sheep (Roberts, 2004).

Economic losses associated with reproductive mortalities cannot be overemphasized in livestock sector development. If livestock production in Nigeria will have to be properly developed and its potential fully harnessed, adequate management and early presentation of obstetrical cases is germane for livestock development.

Case Presentation

History

An adult Yankassa ewe weighing 25 kg was presented to the Theriogenology Clinic of the Veterinary Teaching Hospital, Faculty of Veterinary Medicine, University of Ibadan, Nigeria with a complaint of having protrusion of the uterus after lambing in the early hours of the morning. The duration of uterine prolapse to the time of presentation was less than 12 hours. The ewe was purchased pregnant from the Northern part of Nigeria and reared under semi- intensive system with other sheep. Also, the client reported that the ewe was not nursing her lamb properly which was brought along side with the ewe.

The ewe was alert and had a body condition score of 2.5 on a scale of 0 to 5 (Wildman *et al.*,1982). Clinical findings showed that the rectal temperature was 36.9˚C, heart rate (68 beats/minute) and respiratory rate (36 breaths/min, and the measured parameters were within normal ranges. The mucous membrane was slightly pale. Based on observable clinical signs and physical examination, a diagnosis of uterine prolapse was made due to the presence of exposed caruncles.

Plate 1: Ewe showing the prolapsed uterus during presentation

Management

The ewe was first placed on lateral recumbency on a clean table. Clean water with Dettol® solution containing chloroxylenol 4.8% was used to wash off the dirts on the uterus. 50g of sugar solution was applied to the prolapsed uterus to achieve size reduction as well as the use of ice packs. Once reduction of the prolapse was achieved, the ewe was placed on sternal recumbency for replacement into the pelvic cavity. The prolapsed uterus was lubricated with petroleum gel to aid its replacement back into the pelvic cavity beginning from the part closest to the vulva lips. Limited resistance was encountered when replacing the uterus as very minimal straining was observed. This also informed the reason for not administering a caudal epidural anaesthesia. A sterile candle puller was then used to ensure that the uterus was properly repositioned in the pelvic cavity. The hindquarters as then raised for some minutes with the help of two assistance to assist in the replacement of the uterus by gravitational force. Intramuscular injection of 15mg/kg Amoxicillin was carried out and its tablet was prescribed subsequently for 5 days b.i.d since client said she will not be able to represent to the Theriogenology clinic due to their distant location. This reason also prevented our use of Buhner's technique for prolapse retention. Although the prognosis for not reoccurring was good because the dam was alert, but the ewe was not actively nursing her young which provides the indication for the use of oxytocin for both lactation and uterine involution. The ewe was monitored for one hour before discharged. The client was advised to provide water, concentrates and grasses ad libitum.

Daily follow up through calls was done and the ewe was said to be fine with no reoccurrence of the prolapse.

Plate 2: Uterus on moist towel after cleaning with mild antiseptic and size reduction with sugar solution.

Plate 3: Ewe after replacement of prolapsed uterus

Discussion

Prolapse of the uterus generally occurs immediately after or a few hours of parturition when the cervix is open and the uterus lacks tone (Hanie, 2006). Genital

prolapse is a major issue, causing significant economic losses for livestock owners by negatively affecting the productivity and reproductive performance of the animals. (Khan *et al.,* 1984; El-Wishy, 2007).

The aetiology of uterine prolapse remains uncertain, though numerous risk factors have been associated with its occurrence (Jackson, 2004). These factors include conditions such as lack of uterine tone, dystocia, increased straining due to pain, excessive traction during assisted parturition, the weight of retained foetal membranes, and conditions that increase intra-abdominal pressure, including tympany and excessive estrogen content in the feed. Additionally, it has been previously suggested that calcium deficiency (hypocalcemia) during late gestation and at lambing time may contribute to uterine prolapse in ewes (Fahid, 2014).

An earlier report by Umaru *et al* (2024) identified straining and violent contraction of the uterus as a possible risk factor for uterine prolapse in ewe.

The primary goal in treating uterine prolapse is to reposition the organ and then securing it to maintain its proper placement. A comprehensive clinical examination is essential for animals with uterine prolapse to identify signs of toxemia, such as loss of appetite, increased respiratory rate, elevated pulse, and congested mucous membranes, which may indicate metritis. Trauma and fecal contamination can also exacerbate toxin absorption through the uterine mucosa. However, careful removal of these contaminants by rinsing with a warm water containing mild antiseptic solution is usually successful, causing only minor capillary bleeding. It is advisable to avoid vigorous efforts to remove superficial contamination, as they can affect the dam and increase toxin absorption (Scott and Gessert, 1998).

A caudal epidural is essential before replacing a uterine prolapse because it reduces straining and desensitizes the perineum (Hanie, 2006). This procedure requires clipping and surgically preparing the area from the tailhead to the second coccygeal vertebra. The space between the first and second intercoccygeal vertebrae is identified by digital palpation while slightly moving the tail vertically. Lidocaine is then injected into this space. The uterine prolapse can be corrected with the animal either on sternal or lateral recumbency (Hanie, 2006). After replacing the uterus, the operator should insert a hand to the tip of both uterine horns to ensure no remaining invagination that could cause abdominal straining (Rubini and Ducharme, 2006). If the uterus is fully repositioned to the tips of the uterine horns, the prolapse is unlikely to recur (Hanie, 2006). Once the uterus is in its normal position, administering 10 IU of oxytocin intramuscularly is recommended to increase uterine tone.

Administering injectable broad-spectrum antibiotics for three to five days after replacing the prolapse helps prevent secondary bacterial infections (Borobia-Belsue, 2006; Hosie, 1993; Plunkett, 2000). This was achieved by administering Amoxycillin 15mg/kg intramuscularly for 1 day and oral tablets for 4 days. Animals that have undergone proper management for uterine prolapse can

conceive again without encountering significant impediments.

Complications such as shock, haemorrhage, and thrombo-embolism may develop when there are lacerations, necrosis, or when infection is present, or when treatment is delayed (Noakes *et al.,* 2001).

Colostrum feeding at birth is the most critical management point in a lamb's entire life. The longer colostrum consumption is delayed, the poorer the lamb's ability to utilize it and absorb essential antibodies from the ewe. Ideally, a lamb should receive its mother's colostrum within the first hour of birth to provide passive immunity to the lamb (Massender and Kennedy 2021). In this case, the colostrum was milked from the dam and fed to the lamb using a 5ml syringe at one hour interval, during the uterine prolapse reduction process.

In managing ewes, incidence of uterine prolapse can be reduced by ensuring adequate nutrition during, and at late gestation. Also, proper housing, exercise, and a proper health check or intervention for pregnant ewes can greatly reduce the chances of uterine prolapse in sheep flocks (Gottstein, 2020).

Conclusion and Recommendation

Uterine prolapse is one of the lives threatening conditions affecting sustainable livestock production in Nigeria and may occur during the post-parturient period. Diagnosis and treatment of uterine prolapse is important to the survival of the dam and preservation of the reproductive system. Delay in correction may lead to haemorrhage, septicaemia, shock, and even death of the dam or foetus. Sheep farmers are advised to present cases of uterine prolapse early to the nearest veterinary clinic to improve early recovery of the condition and save the ewe from life-threatening conditions and also prevent economic losses to the farmer.

Acknowledgement

The authors are grateful to Mr Ogundijo and Mr. Joseph of the Theriogenology clinic, Veterinary Teaching Hospital, University of Ibadan and the clinical students on duty for their assistance and support when the case was being managed.

References

1. Borobia-Belsué J.:Replacement of rectal prolapse in sows. *Vet Rec:* 158-380 (2006).
2. El-Wishy, A.B.:The postpartum buffalo: Endocrinological changes and uterine involution. *Ani. Rep. Sci.* 97: 201-215 (2007).
3. Fahid, T. A.: Postpartum uterine prolapse and its relation to hypocalcaemia in local ewes in in local ewes in Basrah province. The Iraqi J. Vet. Med.38 (1): 71 – 73 (2014).
4. Fubini, S.L. and Ducharme, G.N.: Surgical conditions of the post-partum period. Text book of Farm Animal Surgery, pp: 333-338 (2006).
5. Gottstein, M.: Preventing prolapse in pregnant ewes. Today's Farm. 1-2 (2020).
6. Hanie, E.A. Prolapse of the Vaginal and Uterus: Text Book of Large Animal Clinical Procedures for Veterinary

Technicians. Elsevier, Mosby, pp: 218-221 (2006).
7. Hosie, B. Treatment of Vaginal Prolapse in Ewes. *Practice,* 15: 10-11 (1993)
8. Jackson, P. G. G. 2004.: Post parturient Problems in Large Animals. Hand Book of Veterinary Obstetrics. 2nd End. Elsevier Saunders: 209- 231 (2004).
9. Khan, M.Z., Verma, S.K. and Khar, S.K.: Studies on Antepartum prolapse of vagina in buffaloes. Haryana Agri Univ J. Res. 14 (3): 282- 285 (1984).
10. Kumar, A.S, and Yasotha A.: Correction and management of total uterine prolapse in a crossbred cow. *J. of Agriculture and Vet Sci*. 8(1):14-16, (2015).
11. Massender E., Kennedy D.: Care of newborn lamb. Factsheets of Ontario Ministry of Agriculture, Food and Rural Affairs Queen's Printer for Ontario, (2021).
12. Noakes D.E, Parkinson T.J, England G.C.W.: Post parturient prolapse of the uterus. In: Arthurs Veterinary Reproduction and Obstetrics. 8th ed. Harcourt (India) Pvt. Ltd., New Delhi, 333-338 (2001).
13. Noakes, D.E., Parkinson, T.J., England, G.C.W.: Arthurs' Veterinary reproduction and obstetrics, 9th edition, DE Noakes, TJ Parkinson, GCW England (eds), Saunders, Edinburg, London, (2009).
14. McCarter Phoebe. Diseases A-Z lambing Part 3: Vaginal and Uterine Prolapse. NADIS Animal Health Skills (2019).
15. Noakes, D.E.; Perkinson, T.J. and England, G.C.W. Post parturient prolapse of the uterus. Arthur's Veterinary Reproduction and Obstetrics. Saunders, pp: 333-338 (2001).
16. Plunkett, S.J. Vaginal edema (Hyperplasia) or prolapse and uterine prolapse. Text Book of Emergency Procedure for the Small Animal Veterinarian, WB Saunders, PP: 217-218 (2000).
17. Roberts, S. J. Injuries and diseases of the puerperal period. In: Veterinary Obstetrics and Genital Diseases (Theriogenology). 2nd ed. [Indian reprint]. CBS Publishers and Distributors, New Delhi, India, Pp: 300-335 (2004).
18. Scott, P. and Gessert, M. Management of ovine vaginal prolapse. *Vet. Practice,* (20): 28-34 (1998).
19. Srinivas, M., Sreenu, M., Rani, V.L., Naidu, K.S. and Prasad, V.D. Studies on dystocia in graded Murrah Buffaloes: A retrospective study. *Buffalo Bulletin* 26 (2): 40-45 (2007)
20. Umaru, M.A, Biobaku, K, and Adeyeye, A.A.: Vaginal and uterine prolapse in a 3-year-old Ouda Ewe in Sokoto, Nigeria. 32nd Annual Conference of the Nigerian Society for Animal production, Calabar. March 18-21 (2007).
21. Wachida, N and Kasina, A.I.: Uterine Prolapse in a Doe Goat: A Case Report. *Int J of Animal and Vet Adv* 3(3): 135-137, (2011).
22. Wildman, E.E., Jones, I.G.M, P. E. Wagner, P.E. and R. L. Boman, R.L.: A Dairy Cow Body Condition Scoring System and Its Relationship to Selected Production Characteristics. *J. Dairy*, 65: 495-501 (1982).