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A case study on post-partum uterine prolapse in a buffalo and its management

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Abstract

Uterine prolapse is considered as a post partum emergency, further it adversely affects the productive and reproductive performance of buffalo. In this case study, a recently calved 7 year old Murrah buffalo, in her 3rd lactation having prolapsed uterus with retained fetal membrane was attended to farmers door step at Methala, Thrissur. Under epidural anaesthesia, cleaned the uterus with Potassium permanganate solution and reduced the oedema of uterus by applying Magnesium sulphate paste. Repositioned the prolapsed uterus to its normal anatomical position and applied Buhner's suture to prevent the recurrence. Buffalo was also treated with antibiotics, antihistamines, NSAIDS and Calcium borogluconate to avoid further productive and reproductive complications.

Keywords: Uterine prolapse, epidural anaesthesia, repositioning, buhner's suture

1. Introduction

Uterine prolapse is considered as the most important post-partum obstetrical emergency in buffaloes and this condition usually occurring during the third stage of parturition [1]. According to the reports the incidence of uterine prolapse from 9752 calving record was 1.34-2.22% [2] and among various obstetrical problems in buffaloes the incidence of uterine prolapse is 42.9% [3]. The etiology of uterine prolapse is poorly understood, but many factors may act as potential risk factors [4] such as poor uterine tone, prolonged dystocia, foetal traction, foetal oversize, tympany which increases the abdominal pressure and weight of retained foetal membrane [5] [6]. High level of estrogen and relaxin during the last trimester of pregnancy also contributes to the prolapse of uterus as it relaxes the pelvic ligaments and surrounding soft tissues [7]. In addition to this, there is a significant predisposition to occurrence of uterine prolapse in animals with low serum calcium, magnesium and phosphorus during gestation and post partum period, also the excessive estrogen in the feed increases the risk [8,9].

Generally uterine prolapse occurs immediately after parturition or sometimes may be delayed beyond 48 Hrs of parturition [10]. Delay in repositioning may leads to oedema, haemorrhage and even necrosis of uterus which makes the repairing difficult and results in death of the animal mainly due to trauma and shock [11]. In most of the cases, attended within 24Hrs of uterine prolapse, the prolapsed mass could be repositioned successfully without many complications. In this case study the successful management of uterine prolapse of a Murrah buffalo at field condition is discussed.

2. History and Clinical Observation.

A 7 year old Murrah buffalo weighing about 450 Kg, in 3rd lactation was attended to farmer's door step at Methala, Thrissur. According to case history the buffalo was calved 6 Hrs before and showed severe tenesmus during the early hours of calving. The buffalo showed discomfort signs, the uterus was prolapsed and the buffalo was off feed after calving. On clinical examination, observed the buffalo was lying on sternal recumbent position and the uterus with caruncles was exposed and attached with foetal membrane (Fig 1). The prolapsed mass was oedematous and touching on the ground. Advised the farmer to provide a clean sheet of wet sterile cloth and kept the prolapsed uterus in that sheet to prevent the contamination. The mucous membrane was congested and rectal temperature was 102.8 °F.

3. Treatment

Caudal epidural anaesthesia was induced with 5ml of 2% Lignocaine HCl to relax the uterus

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and to minimize the straining. The foetal membrane was removed manually from the prolapsed uterus. To facilitate the passage of urine lifted the uterus so that the pressure on the external urinary meatus reduced. The everted uterus was washed with 1:1000 solution of Potassium Permanganate (KMnO₄) to remove the debris. Oedema of prolapsed mass was reduced by applying hypertonic magnesium sulphate (MgSO₄). Applied a mixture of Lignocaine jelly and Soframycin cream to reduce the straining and to provide antibacterial coverage. The everted uterus was repositioned to its normal anatomical position by applying gentle pressure with fist hand from the base and continuing up to the apex with help of palm of the other hand. After repositioning the uterus, on per rectal examination confirmed that the uterus was in its normal position. Then Buhner's suture was applied on the vulva with a local sterilized thread leaving four finger spaces between vulvar lips and a slip knot was placed at the ventral commissure of the vulva. The buffalo was treated with Inj. Ceftiofur at 2mg/Kg body weight, Inj. Meloxicam at 0.5 mg/Kg Kg body weight and Inj Chlorpheniramine maleate 50 mg intra muscularly for three days. Also the animal was treated with calcium borogluconate-450 ml intravenously. The buffalo was recovered successfully without any complications.



Fig 1: Prolapsed uterus with retained foetal membranes



Fig 2: Application of Buhner's Suture

4. Discussion

Uterine prolapse is an obstetrical problem, which adversely affects productive and reproductive performance of buffaloes by affecting postpartum return to oestrus, conception rate and calving interval. Prolapse of uterus is considered as veterinary emergency because the cow is likely to die if the treatment was not provided at the earliest. Uterine prolapse in buffaloes usually occur within 2-24 hours of calving^[10] which is also observed in this case. Uterine tissues appear almost normal immediately after prolapse but after some hours they become oedematous and enlarged. Usually cases presented after 6-12 hrs of uterine prolapse, inflammation, haemorrhage and even necrosis might be evident^[11]. In this case study oedema could be observed but haemorrhage and necrosis was not evident. Before replacement of the prolapsed uterus, the oedema has to be reduced by applying cold ice packs, hypertonic salt or alum solutions. Handling induced trauma is common and this can be minimized by prior reduction of uterine edema and enclosing the everted uterus in a plastic or porous fabric bag^[9]. In large ruminants like buffalo, the uterine prolapse could be managed by epidural anesthesia as it reduces the straining^[12] and the present observation implies the condition. The complete reduction of uterine prolapse could be achieved with proper management and unsuccessful cases may result in continuous straining and necrosis^[9]. To avoid the recurrence of uterine prolapse, different kinds of vulvar sutures or a rope truss can be used. Buhner's suture technique is used in this case study to avoid the recurrence as it was mentioned in a case report^[13]. After replacement of uterine prolapse it is advisable to administer antibiotics, anti-inflammatory drugs, antihistamines and calcium borogluconate. Uterine prolapse is an obstetrical emergency, even though they can be successfully managed if the cases attended at early stages.

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