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Correction of a post-estrual vaginal prolapse in a sahiwal cow

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Abstract

A four (4) years old Sahiwal cow was admitted to the Teaching Veterinary Clinical Complex (TVCC), College of Veterinary Science, Assam Agricultural University, Khanapara with a history of hanging mass from the vulva. On clinical examination it was confirmed as vaginal prolapse. Blood sample was collected to study different blood biochemical and haematological parameters. There was a slightly lower value of Calcium and Phosphorus then the normal reference range. The prolapsed mass was corrected manually and antihistaminic, non-steroidal anti-inflammatory and Ceftiofur sodium antibiotic was injected intramuscularly as therapeutic management. Delivery of a healthy calf was reported after completion of full gestation period without any complications.

Keywords: post-estrual, vaginal prolapse, sahiwal cow, blood biological, haematological

1. Introduction

Generally, prolapse means falling down or slipping of a body part from its usual position. The genital prolapse in ruminants is an emergence condition covering uterine and vaginal prolapse and should be treated before excessive edema, traumatic lacerations, fatal hemorrhage and bacterial contamination lead to unfavourable prognosis [1]. Prolapse of cervix and vagina is common obstetrical problem which adversely affects productive and reproductive performance by affecting postpartum return to estrus, conception rate and calving interval. Vaginal prolapse usually involve protrusion of the portion of the floor, lateral walls and roof of vagina through vulva [2]. The mean reason to the disorder is a relaxation of the pelvic ligaments and surrounding soft tissue structures and alterations in the ante partal metabolism of vaginal connective tissue. In the present study we are going to discuss on postestrual vaginal prolapse in a sahiwal cow and its therapeutic management.

2. Case history (anamnesis): A four (4) years old Sahiwal cow weighing about 300 kg with a hanging mass from the vulva was presented to the Teaching Veterinary Clinical Complex (TVCC), College of Veterinary Science, Assam Agricultural University, Khanapara. According to the owner the animal came to oestrus 2 days before and on the very next day of estrus an oval shaped protrusive mass with red colour was observed caudal from the vulva (fig. 1).

3. Clinical examination: The body temperature recorded was 102°F. The animal was restless with increased respiratory rate. Five (5) ml of Blood sample was collected from the jugular vein in EDTA vial (2ml) and in clot activator vial (3ml). Blood from EDTA vial was analysed for haematological parameters and the blood from clot activator vial was centrifuged at 3000 rpm for 10 minutes. Serum was separated and analysed in spectrophotometer (Fujifilm, Japan) to know the level of Calcium (Ca), Phosphorus (P) and Magnesium (Mg) in blood.

4. Diagnosis: On the basis of case history and clinical examination of the animal it was confirmed as a case of post estrual vaginal prolapse.

5. Correction and Management: The cow was restrained with the help of two attendants. At first the perineal region of cow was washed with clean water. Then low epidural anaesthesia (@ 5ml) was injected at 1st inter coccygeal space using local anaesthetic, 2% lignocaine hydrochloride (5ml) to prevent straining, easy control of tail and desensitization of pelvic region which facilitate easy manipulation of vagina into its original position.

The prolapsed mass was first cleaned and washed with potassium permanganate (1:1000) solution and lacerated wounds were dressed with Betadine ointment (10% povidone iodine, Win- Medicare Pvt. Ltd., New Delhi, India). Thereafter, the prolapsed mass was manually repositioned by gentle pushing with fist hand simultaneously elevating the mass with the palm of other hand and thus it was corrected. After correction the animal was injected with 15ml Pheniramine maleate (Avinin, MSD) intramuscularly, Ceftiofur sodium (Tefrocef, MSD) antibiotic @ 1.1 mg/ kg body weight for three days and 15 ml of Meloxicam+ paracetamol (Melonex plus, Intas pharmaceuticals) intramuscularly for 2 days. There was no report of recurrence from the owner till 2 months after the correction.

6. Results and Discussion: All the hematological and blood biochemical parameters were in normal range except Calcium (6.3 mg/dl) and Phosphorus (3.4 mg/dl), which were in slightly lower value than the normal range as shown in table 1. The incidences of a genital prolapse seen frequently in buffaloes and have been recorded as 14% during the last pregnancy phase or immediately post-partum [3]. At the same time this disease was also registered in cattle and sheep [4]. The present study shows that vaginal prolapse could be observed in a non-pregnant cow after normal estrus. Khan (2005) [5] also reported about suffering of the same in young buffalo heifers and ewes. From biochemical blood analysis it was seen that estimated value of serum calcium and phosphorus was less than the normal value (Table 1). This might be a reason for the prolapse which was supported by the findings of Akhtar *et al.* (2008) [6].

Table 1: Hematological and Blood Biochemical parameters

Parameters	Value	Reference range
Calcium	6.3	8.9-11.7 mg/dl
Phosphorus	3.4	4.2-9.1 mg/dl
Magnesium	3	2.8-3.6 mg/ dl
Haemoglobin	10	8-12 gm%
RBC	9	8-18 million/ cubic mm
PCV	35	50-70%
WBC	10	8-12 thousand/ cubic mm
Lymphocyte	68	50-75%
Neutrophil	34	30-48%
Eosinophil	7	1-8%
Monocyte	4	0-4%

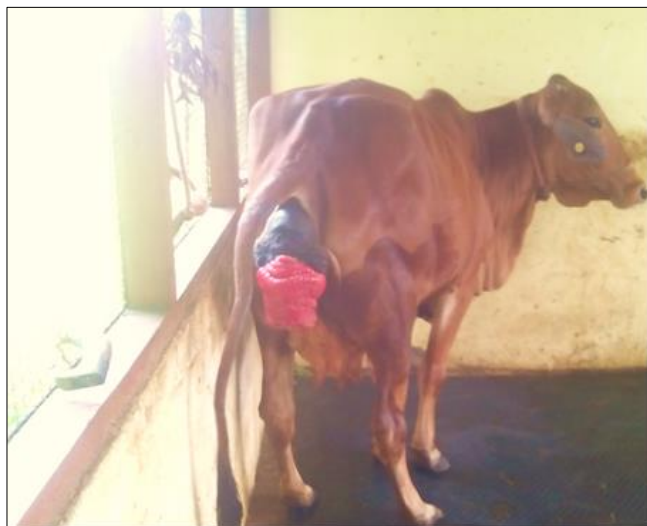


Fig 1: Prolapsed mass hanging from the vulva

7. Conclusion

Vaginal prolapse could be occur in postestral cow which could be corrected manually.

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