

## Case Report

# Clinical Management of Post-Partum Complete Uterine Prolapse in Crossbred Dairy Cow: A Case Report

Tekalign Tadesse\* and Endalu Mulatu

*Bede College of Agriculture and Forestry, Mettu University, Ethiopia***\*Corresponding author**

Tekalign Tadesse, Bedele College of Agriculture and Forestry, Mettu University, Ethiopia

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**Abstract**

This report documents the clinical management of complete uterine prolapse in a cross-breed cow presented to Addis Ababa University College of Veterinary Medicine, Veterinary Teaching Hospital in October 10, 2018 with the history of normal parturition and expulsion of fetal membrane. Twelve hours after the fetal membrane expulsion, the uterine mass was everted hanging on the hock and the cow got recumbent. The clinical examination revealed that the cow was at left lateral recumbency and the everted uterine mass was soiled with feces and straws. The cow was subjected to epidural anesthesia and with a proper lubrication the prolapsed uterus was repositioned and purse string sutures were applied at vulva along with supportive therapy and cow recovered successfully without further complication of prolapse.

**INTRODUCTION**

Uterine prolapse is one of the most potentially dangerous complications associated with calving [1]. In most cases, it occurs immediately after parturition or occasionally up to several hours afterward and rare cases, it may occur 48 to 72 hours after parturition [2]. Various predisposing factors have been suggested for uterine prolapse in the cow, i.e. hypocalcaemia, prolonged dystocia, fetal traction, fetal oversize, retained fetal membranes, chronic disease [3]. In ruminants, the uterine prolapse is generally a complete eversion of the gravid cornua with incidence 0.3 to 0.5% of all calving. Few authors reported that 40% of cows became pregnant after uterine prolapse. If prompt treatment is instituted, a post operative fertility rate of 40-60% has been recorded [4]. Delayed cases may develop fatal septicemia to death. Success of treatment depends on the type of case, the duration of the case, the degree of damage and contamination. The aim of this report was to present a case of post-partum complete uterine prolapse in cross breed Holstein Friesian with its diagnosis, treatment and successful management.

**CASE HISTORY AND CLINICAL EXAMINATION**

Eight years old, pleuriparous Holstein Friesian crossbred was admitted to Addis Ababa University College of Veterinary Medicine, Veterinary Teaching Hospital with a history of normal parturition to healthy female calves 24 hours before, and expelled the placenta normally within 12hours post calving, but after the placenta had been expelled, the uterine mass started protruding from the vulva and left lateral recumbency followed. The uterus exposing inner walls, cervix was edematous, congested and the

maternal caruncles were covered by dirt, dust, soil and hanging up to the hocks. Clinical examination revealed rectal temperature of 37°C; pale mucous membrane, respiratory and pulse rates were slightly elevated and cow were restless.

**CASE MANAGEMENT AND TREATMENT OUTCOME**

Initially, the perineal region of cow was washed with clean water then epidural anesthesia was achieved by infiltration of lidocaine (10ml) between the first and the second inter-coccygeal space to prevent straining. After allowing 10 min for the anaesthetics to take its effect, sensitivity around the perineal region was assessed by pricking with a needle. The prolapsed mass was washed gently with warm saline and then with 1% potassium permanganate solution to remove the debris and absorb most of its moisture. The cow were kept on slightly elevated area from behind then using both hands with moderate force the prolapsed uterus was gently pushed in through the vagina, cervix and uterine body to avoiding recurrence of prolapsed. Purse string suture was placed in the vulva with sterile cotton thread. As post operative care, we administered Calcium borogluconate 450 ml/ IV and an injection of oxytocin 15 IU IM once.

To prevent secondary bacterial complication one shots of long acting Oxytetracycline 20 mg/kg of body weight were injected intramuscularly and Dexamethasone were administered intramuscularly 0.5 mg/kg of body weight for the 1<sup>st</sup> day followed by 0.2 mg/kg of body weight for the subsequent 3 days. The case showed excellent response to the treatment, as prolapse did not re-appear after completion of treatment; vaginal suture was removed after one week without any observable complication.

## DISCUSSION

The exact etiology of uterine prolapsed is still unclear, however hypocalcaemia [5], poor uterine tone, increased straining, conditions that increase the intra- abdominal pressure including tympany, excessive estrogen content in the feed [2], forced traction of the fetus [5] are the contributing factors for the onset of the condition.

In the present study, soil and straw materials were removed carefully and potassium permanganate solution was used to prevent the uterine infection and reduce uterine size respectively which agreed with the report of [6,7]. Caudal epidural anaesthesia was achieved before the replacement of a uterine prolapse to reduce straining and desensitization of the perineum which was in agreement with [2]. Although, post-operative treatment with oxytocin was considered helpful in uterine tone restoration and subsequent prevention of re-prolapse [5]. Administration of long acting broad spectrum antibiotic therapy was provided which will prevent secondary bacterial infection [8].

## CONCLUSION

The current clinical case reports on occurrence of post-partum complete uterine prolapsed in a crossbred pluriparous cow and its successful obstetrical and therapeutic management. Timely treatment of uterine prolapse is crucial to avoid toxemia and death of the animal. So, the farmers should be familiar with risk factors associated with uterine prolapse and veterinarian should be careful about early diagnosis, correction and management

issues for recovery of the condition which will save the cow otherwise prone to further reproductive health problems.

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