

## **Correction and Management of Total Uterine Prolapse in A Crossbred Cow**

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**Abstract:** Uterine prolapse is a common obstetrical problem, which adversely affects productive and reproductive performance of cattle by affecting postpartum return to estrus, conception rate and calving interval and the incidence of uterine prolapse as 42.9% among various obstetrical problems in cattle. In this study total uterine prolapse, replacement of everted organ of uterine prolapse was done manually following proper precautionary measures. In this case of uterine prolapse was completely recovered.

**Keywords:** Crossbred cows, total uterine prolapse, Management, Correction

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### **I. Introduction**

Uterine prolapse is a non-hereditary complication occurring immediately after parturition and occasionally up to several hours afterwards (Roberts, 1971). Prolapse of the uterus is a common complication of the third stage of labour in the cow (Joseph et al., 2001). In ruminants the prolapse is generally a complete inversion of the gravid cornua (Arthur et al., 1996). Uterine Prolapse is one of the most potentially dangerous complications associated with calving. A uterine prolapse can vary in size from about 18 inches to 3-4 feet in a large cow. In crossbred cattle, prolapse of uterus is usually associated with hypocalcaemia or milk fever. The etiology of uterine prolapse is unknown, But many factors have been associated (Hanie, 2006; Jackson, 2004). These includes, conditions such as poor uterine tone, Increased straining, The weight of retained fetal membranes, Conditions that increased intra abdominal pressure including tympany and excessive estrogen content in the feed. 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 (Tyagi and Singh, 2002). Delayed cases may develop fatal septicaemia. Success of treatment depends on the type of case, the duration of the case, the degree of damage and contamination. The aim of this study was to manage and correct the clinical cases of uterine prolapse save crossbred cows from severe consequences.

### **II. Case History, Clinical Observation**

A fifth parity cross bred cow was presented with a history of a normal parturition. A normal female calf was born before eight hours. The total uterine mass was prolapsed after the fetal membrane sheds normally. The animal was in a lying down position. A thorough physical examination was carried out and the vital parameters were: Temperature 39.9°C, Heart rate 126 beats/min, Respiratory rate 79 cycles /min and pulse rate 126 beats/min. The ocular mucous membrane was pinkish and the prolapsed uterus mass was swollen, necrotic and stained with dung materials and debris.

### **III. Clinical Management**

Epidural anesthesia was achieved by infiltration of 10 ml of lignocaine solution into the first sacrococcygeal vertebrae to prevent straining during replacement of the prolapsed organ. After allowing 10 min for the anaesthetics to take effect, sensitivity around the perineal region was assessed by pricking with a needle. The debris and dung materials were gently removed and the prolapsed uterus was washed with warm dilute chlorhexidine solution (Hosie, 1993). The necrotic area was debrided. The animal was then placed on sternal recumbency and the two hind limbs were pulled out behind her. Then using both hands with moderate force the prolapsed uterus was gently pushed in through the vagina. The body was first pushed in followed by the horns. Then the purse string suture with sterile cotton thread was placed in the vulva as a retention technique to hold the uterus in place. The animal was treated with antibiotic inj.Ceftiofur @ 2mg/kg b.wt, inj.Oxytocin 15 IU i/m, anti-inflammatory analgesic (inj.Meloxicam)15ml i/m, antihistaminic (inj.Chlorpheniramine maleate)10ml i/m, and i/v fluid therapy inj.DNS 1800 ml/day and inj.Calciumborogluconate 450 ml/day. The same treatment was followed for three days except inj.Calciumborogluconate and inj.Oxytocin. The vaginal suture was removed after one week. The animal became healthy with plenty of milk production and normal fertility.

#### **IV. Results And Discussion**

Prolapse of the uterus normally occur during the third stage of labour at a time when the fetus has been expelled and the fetal cotyledons has separated from the maternal caruncles (Noakes et al., 2001). The goal in the treatment of uterine prolapse is replacement of the organ followed by a method to keep it in the retained position. A full clinical examination of animals with uterine prolapse must be undertaken as signs of toxemia like in appetite, an increased respiratory rate, raised pulse and congested mucus membranes may be consisted with metritis. Vascular compromise, trauma and faecal contamination may also increase toxin intake across the uterine mucosa. However, careful removal of these materials, after soaking with warm dilute antiseptic solution is usually successful causing only minor capillary bleeding. Vigorous attempts to remove superficial contamination should be avoided as they may prove counterproductive by increasing toxin uptake (Scott and Gessert, 1998). A caudal epidural anaesthesia is essential before replacement of a uterine prolapse as it decreases straining and desensitizes the perineum. The uterine prolapse can be replaced with the animal in standing or recumbent position (Hanie, 2006). Once the uterus is replaced, the operators hand should be inserted to the tip of both uterine horns to be sure that no remaining invagination could incite abdominal straining and re prolapse (Fubini and Ducharme, 2006). If the uterus is completely and fully replaced all the way to the tips of the uterine horns, the prolapse is unlikely to occur (Hanie, 2006). Simple manual methods of overcoming uterine prolapsed difficulties have been introduced in this study. The tension of a rope around the posterior abdomen, raising the animal's hind legs on board or on a truss of straw, or even casting her and raising her part by means of a block and tracle hooked to figure of eight rope around the hooks. This is also suggested by different author (Arthur et al., 1999). Before replacement of uterus epidural anesthesia was performed. The replacement of uterus was performed little by little, starting the vulval lips upper and lower portion. The prolapsed uterus was pushed into vagina by manual pressure and takes care of vulval lips. Once the uterus is in its normal position, oxytocin 10 i.u intramuscularly should be administered to increase uterine tone. It has also been reported that most animals with uterine prolapse are hypocalcaemic (Fubini and Ducharme, 2006). Where signs of hypocalcaemia are noticed such animals should therefore, be given calcium borogluconate. An injectable broad spectrum antibiotics once administered for three to five days after replacement of the prolapsed will prevent secondary bacterial infection (Borobia-Belsue, 2006; Hosie, 1993; Plunkett, 2000). Animals with uterine prolapse that were properly managed can conceive again without problems. Complications develop when lacerations, necrosis and infections are present or when treatment is delayed. Shock, hemorrhage and thromboembolism are potential sequelae of a prolonged prolapse (Noakes et al., 2001). The high vital parameters witnessed in this case when the animal was first brought could be as a result of metritis caused by secondary bacterial infection especially as the animal was brought for treatment after three days of occurrence of the prolapse. Treatment with broad spectrum antibiotics (Ceftiofur sodium 2mg/kg) was responsible for the lowering of the vital parameters to the normal values after three days of treatment.

Ceftiofur sodium was given to prevent the secondary bacterial infection. By gentle pressure, the nearest cotyledons are pushed into vagina, taking care that the lips of the vulva remain well apart and don't become turned inwards. It is generally best to replace portion of the upper and lower surface alternatively. In recumbent animal, the immediate need is to cover the prolapsed mass with clean, wet cloth to keep the mass moist and free from further animal. In standing animal, the free from wrapped in a cloth and hold high level of the vulva. Handling of the prolapsed organ invariably leads to about of tenasmus and therefore light epidural anesthesia is mandatory (Tyagi and Singh, 2002). Plenderleith (1986), described a method which is now in common usage amongst practitioners. The cow is placed in sterna recumbency with both hind legs pulled out. The usually the edematous placentomes allow easy separation of cotyledons from caruncles (Potter, 2008). Prognosis of prolapsed uterus generally favorable for uncomplicated cases where there has been no serious damage to the uterus. In one study a two week survival rate of 72.4% (Gardner et al., 1990) was found, with other studies findings survival rates of 73.5% (Jubb et al., 1990) and 80% (Murphy and Dobson, 2002).

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