

## **CORRECTION AND THERAPEUTIC MANAGEMENT OF POST-PARTUM UTERINE PROLAPSE IN HOLSTEIN FRIESIAN CROSSBRED COW**

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**Abstract:** Total of 5 cases of uterine prolapse in Holstein Friesian crossbred cow of 4-5 years of age were corrected in and around block-6, Ri-Bhoi District of Meghalaya, India. Most of the cases was found within 1 to 10 hours following parturition. In the present study all cases of uterine prolapse, everted organs were replaced manually following proper precautionary measures and supportive treatment. All cases of uterine prolapse were completely recovered.

**Keywords:** Post-Partum, Uterine Prolapse, Holstein Friesian crossbred, Meghalaya.

### **Introduction**

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 recorded as 42.9% among various obstetrical problems in cattle. Uterine prolapse is the protrusion of the uterus from the vulva with the mucosal surface exposed (Gustafsson *et al.*, 2004). Genital prolapse is a major but not very common reproductive disorder in cattle and buffaloes (Seth, 1970; Ahmed *et al.*, 2005). Uterine prolapse has been recorded in all species of animal, although most commonly seen in pluriparous dairy cows occurring immediately after parturition and occasionally after several hours (Roberts, 1971; Noakes *et al.*, 2001). Incidence of post-partum uterine prolapse varies from 6.6 % to 12.9 % (Nanda and Sharma, 1982). It is regarded as an emergency condition and should be managed before excessive edema, mucosal trauma, contamination and fatal haemorrhage (Miesner and Anderson, 2008). Although a high estrogen level is considered as a prime factor for ante partum vaginal prolapse (Roberts, 1998), the exact etiology of uterine prolapse is still unclear (Noakes *et al.*, 2001). Various predisposing factors lead to uterine prolapse in the cow, i.e. hypocalcaemia, hypophosphatemia, hypomagnesemia,

prolonged dystocia, fetal oversize, fetal traction, retained fetal membranes, chronic disease and paresis (Ahmed *et al.*, 2005; Potter, 2008).

### **Case History and Clinical Observation**

A third to fourth parity Holstein Friesian cross bred cows were presented with a history of a normal parturition. Most of the cases occurred on an average of 1 to 10 hours of normal parturition. The total uterine mass was prolapsed along with fetal membrane. When attended some animals were in lateral recumbency and some were found in sterna recumbency position. A thorough physical examination was carried out and the average vital physiological parameters were recorded as body temperature 39.4°C, heart rate 126 beats/min, respiratory rate 75 cycles/min and pulse rate 123 beats/min. The ocular mucous membrane were pinkish and the prolapsed uterus mass was inflamed, necrotic, swollen and stained with dung materials and debris. From the history and clinical observations, the cases were diagnosed as post-partum uterine prolapse. Gynaecological examination revealed to the diagnosis of the condition as post-partum uterine prolapse.

### **Management and treatment:**

The animals were restrained in standing position and epidural anaesthesia (2% Lignocaine hydrochloride @0.2 mg/kg body weight) was administered. The prolapsed uterus was made aseptic by washing with 2% potassium permanganate solution followed by washing with warm normal saline. Gently application of 50 gm of nolapse powder (Virbac) on the prolapsed mass was made and waited to 15-20 minutes. With gentle pushing and meticulous pressure, the prolapse mass was pushed inside with half closed hand into the pelvic cavity and both the uterine horns were repositioned normally. Replacement of everted organ of uterine prolapse was done manually following proper precautionary measures and supportive treatment. The vulvar lips were cleaned with potassium permanganate solution and vaginal passaries viz., Furea (Intas Pharmaceutical) 2 boli were placed in each horn of the uterus in each animal. Finally, the vulvar lips were sutured by means of eight knot suture leaving the labia minor open for urination and to overcome further complication. A course of parenteral antibiotic viz., Ceftriaxone sodium @5mg/kg (Intacef Tazo 3375 mg Inj, Intas Pharmaceuticals Ltd.) along with anti-inflammatory drug (Meloxicam @1ml/kg body weight) was given for 5 days. The supportive treatment was provided to all the cases with antihistaminic (Anistamin, Intas Pharmaceuticals Ltd) 10 ml intramuscularly for 3 days and vitamin B-complex with liver extract (Balamyl, Sarabhai Zydus) 10 ml total dose for the subsequent five days.

## Result 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). In all the cases, animals started taking feed normally after 5-6 hours of treatment. The cows recovered completely without any future reproductive complication. Arthur *et al.* (1996) stated that uterine prolapses are associated with the onset of uterine inertia during the 3<sup>rd</sup> stage of labor when a portion of detached afterbirth occupies the birth canal and protrudes from the vulva. The suture was removed after 10 days. The usual sequel of uterine prolapse is haemorrhage, shock, septic metritis, peritonitis, infertility or death. Bhattacharya *et al.*, (2012) reported 9.09% mortality rate and 18.18% cows developed metritis. Sometimes in delayed cases, partial contraction of cervix interferes with proper repositioning, resulting in recurrence of prolapsed (Bhoi and Parekar, 2009). It was observed that the hygienic handling, proper management and treatment should definitely prevent further reproductive tract damage and aid in quick recovery. The cows recovered successfully without any complications.

The relaxation of pelvic ligaments due to the perous nature of the cow along with straining and lack of uterine tonicity as described by Wani *et al.* (2000) and the increase in intra-abdominal pressure, uterine inertia and loss of muscular tonicity as described by Arthur *et al.* (1996) might be the cause of uterine prolapse in this case.

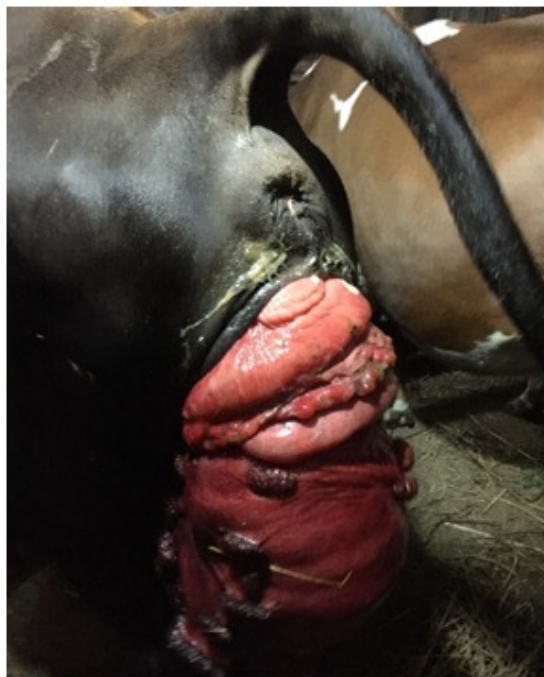
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**Fig. 1** Prolapse Uterus with caruncles



**Fig. 2** Hanging of prolapse mass



**Fig. 3** Complete replacement of prolapse uterus

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