Case Report

# MANAGEMENT OF PREPARTUM CERVICO-VAGINAL PROLAPSE IN A HOLSTEIN FRIESIAN CROSSBRED COW

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## ABSTRACT

*The present case report explains management of cervico-vaginal prolapse in a eight months pregnant Holstein Friesian crossbred cow. The proper therapeutic and management practices were applied for easy reposition and correction of cervico-vaginal prolapse. The results conclude that cervico-vaginal prolapse occurs due to one or more etiological factors including impaired endocrine function due to feeding with mustard fodder.*

**Keywords:** Prepartum, Cervico-Vaginal Prolapse, Cow

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Cervico-Vaginal Prolapse is one of the major gestational complications in crossbred cows, especially in pluriparous cows. Various surgical and non-invasive techniques are being practiced for management of cervico-vaginal prolapse in cows with varied degree of prognosis depending upon promptness, grade, follow up and severity of cases.

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## CASE HISTORY AND CLINICAL OBSERVATIONS

A 7 years old and about eight months pregnant HF crossbred cow in its 3rd parity was reported to Animal Production Research Institute, Dr. Rajendra Prasad Central Agricultural University, Pusa, Bihar with the history of protrusion of vaginal mass. General clinical examination revealed reddish cervico-vaginal mass with os of the cervix at caudal end. Mild laceration was also observed around the cervical os. Whole protruded mass was oedematous. Cow was in standing posture with straining and was frequently attempting to urinate. Pelvic ligaments and muscle of vulva were relaxed (Fig.1).On enquiring about

animal was fed with mustard fodder along with oats and berseem since about a month.

**Management**

An epidural anaesthesia, Inj. Xylocaine 2 % (Lidocaine, Zydus Cadila, India), 5 ml, was given at dose rate of 1ml for 100 kg body weight. Inj. Melonex (Meloxicam, Intas Pharma Ltd., Gujarat, India), 15 ml, intramuscularly (IM) was given. POP IN spray (Natural Remedies Ltd., Bangalore, India) was also applied topically on exposed mass. Prolapsed mass was raised and one and half litre of urine was drained out. Mass was thoroughly washed and rinsed with normal saline followed by 2 % potassium permanganate solution. Liquid paraffin and glycerin were applied on the mass and then prolapsed mass was pushed gently and repositioned. Modified Buhner's suture was applied around the vestibulum and tightened. Animal was closely monitored until parturition. Daily topical application of Exoheal spray (Intas Pharmaceuticals Ltd, Gujarat, India) was done. Inj. Melonex, 15 ml, IM was repeated for next three days. Inj. Ceftiofur Sodium (X-Ceft, Alembic Pharmaceuticals Ltd, Mumbai, India), 1gm, intramuscularly (IM) given at two days interval. Also intravenous Inj. of Mifex (Calcium Magnesium Borogluconate, Novartis Ltd., Mumbai, India), 450 ml. Further, Inj. Novi Zac (Phosphorous, Intas Pharmaceuticals, Gujrat, India), 25 ml daily, intramuscularly (IM) for two days and Inj. Chlorphenaramine Maleate (Anistamin, Intas Pharma), 10 ml daily, intramuscularly (IM) for three days were administered. Inj. Progesterone (Hyprogen Plus, Vetspharma), 3 ml was given intramuscularly twice at seven days interval. Inj.Dextrose (Intalyte Intas Pharmaceuticals, Gujarat, India) 1000 ml (IV) daily for two days was given.

Animal owner was advised to tie the cow in the shed at an elevated rear end position. Also, advised to feed total ration to the cow in four divided doses and to stop feeding mustard fodder till parturition. After eighteen days vulval retention suture was removed. Seven hours after removal of suture, the cow delivered a healthy male calf weighing 37 kg.

Elevated level of circulating estrogen and relaxin hormone in last trimester of pregnancy associated with imbalance in blood calcium and phosphorus level may lead to cervico-vaginal prolapsed (The Merck Veterinary Manual: Akhtar *et al.,* 2008; Kumar, 2015 and Hasan *et al.,* 2017). These hormones relaxes sacro-sciatic and adjacent ligaments (Wolfe, 2009). Irrespective of severity of cervico-vaginal prolapse, early diagnosis and prompt therapeutic management gives better prognosis. Epidural anaesthesia helps to control straining and easy repositioning of protruded mass in to its normal anatomical position (Noakes *et al.,* 2009). Green fodder crops of Brassica family like mustard have high phytoestrogen content and prolonged feeding such fodder to cow in last trimester may alter endocrine status. Application of anti-inflammatory medicines either parenterally or topically or both and evacuating urinary bladder either by lifting mass or by using stainless steel catheter or by puncturing the

bladder aids in easy reposition and correction of cervico-vaginal prolapse (Miesner and Anderson (2008). Progesterone also improves the condition in pre-partum cervico-vaginal prolapse in cows (Bhattacharyya *et al.,* 2012).

## CONCLUSION

The present case report concludes that cervico-vaginal prolapse occurs due to one or more etiological factors including impaired endocrine function due to feeding with mustard fodder. However it needs further investigation. Taking prompt action with appropriate corrective measures and correct line of treatment are very important for better prognosis in cervico-vaginal prolapse cases.

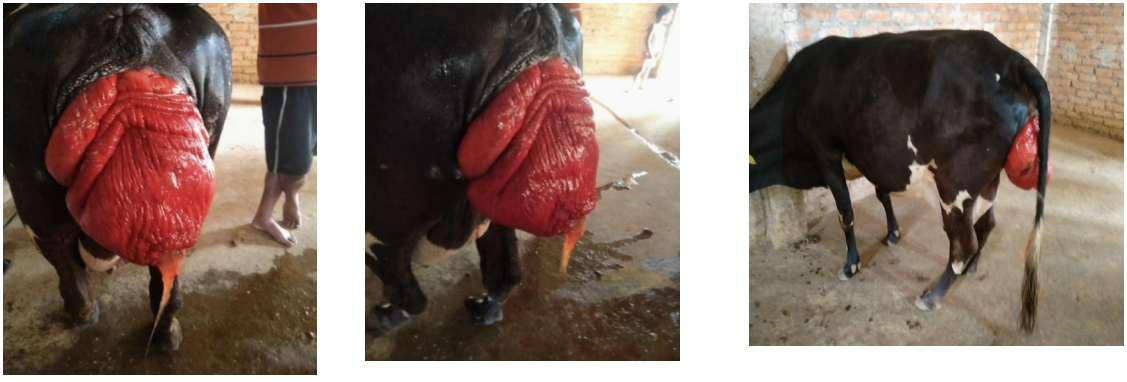

**Fig.1. Prepartum Cervico-Vaginal Prolapse in Holstein Friesian crossbred cow**

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