

Original Research Article

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Management of Pre-Partum Vaginal Prolapse in a Crossbred Cow with Rope Truss Method

Dipak Kumar Sarma*, Arunodoy Das and Nipjyoti Nath

Department of A.R.G.O., College of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati-22, Assam, India

*Corresponding author

ABSTRACT

Keywords

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A 6 years aged Holstein Friesian 7 month pregnant crossbred cow was suffering from recurrent vaginal prolapse since 5 months of her pregnancy. The cow was not responding to any of the conventional lines of treatment. Finally, rope truss method was applied. Additionally, 750 mg progesterone administered IM weekly for thrice along with Ceftiofur @ 2.2mg/kg IM for 5 days to reinforce the rope truss and no reoccurrence was observed. Rope truss was allowed to continue till parturition and during calving only and thereafter it was removed. Hence it can be concluded that the rope truss is very effective, non-invasive, easy and less expensive method for successful management of pre-partum vaginal prolapsed in cow.

Introduction

Prolapse of vagina alone or concomitantly with cervix is less frequently occurring one of the gestational complications in dairy animals. The etiological factors may be attributed to the condition like higher estrogen secretion from placenta, heredity, mineral deficiency, increased intra-abdominal pressure, excessive relaxation, weakening and atony of the vaginal musculature, pelvic ligaments and, vulvar sphincter muscles, bacterial or fungal infections, and ingestion of phyto-estrogens, hormonal imbalance, etc. (Roberts, 1971; Sharma *et al.*, 1977; Arthur *et al.*, 1989; Galhotra *et al.*, 1991; Tyagi *et al.*, 2002). In managing cervico-vaginal prolapse various surgical or nonsurgical

techniques (Kumar, 2015) and medicines (Dhillon *et al.*, 2006) have been practiced with varying degrees of result. The present communication has been placed to record a successful management of recurrent pre-partum vaginal prolapse in a crossbred dairy cow using rope truss technique.

Case history and clinical observations

A 6 years aged Holstein crossbred cow, maintained in a private dairy farm, at seven months of pregnancy was being reported to had the problem of recurrent vaginal prolapse since last two months. Initially, according to history, the problem was intermittent with

protrusion of the vagina between the vulvar lips when the animal was lying down or while on recumbency. In due course of time the vaginal prolapse became aggravated and the vagina prolapsed even on standing (Fig. 1). The cow had already been treated with calcium borogluconate, antibiotics, and progesterone injections with application of shoe lace vulvar suture for several occasions in last two months but failed to prevent reoccurrences with each of episodes of treatments.

The owner also reported that with advancement of pregnancy the degree of protrusion of vagina was increasing along with the increased straining of the cow. The cow exhibited discomfort with frequent attempts to urinate. Clinical examination revealed swollen, edematous and congested vaginal mucosa with some lacerations. The temperature recorded was 102.9° C. Considering the not responding history to any conventional treatment and on the basis of present findings the rope truss method was decided to apply for management of the

recurrence of the protrusion of the vagina in this present case.

Treatment and Discussion

The cow was restrained with the help of two attendants. 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 fistful hand simultaneously elevating the mass with the palm of other hand. Prevention of recurrence was achieved with the application of rope truss technique following standard operational procedure described by Kumar (2015) with a 3 mm diameter sized jute rope (Fig. 2). The cow was then administered daily with Ceftiofur (Xyrofur, Intas Pharmaceuticals Ltd. Gujarat, India) for 5 days @ 2.2 mg IM and Progesterone @ 750 mg, IM at 7 days interval for 3 occasions (Hyprogen plus, Vets Farma Ltd. Jalandhar, India).

Fig.1 Prolapse of vagina



Fig.2 Application of rope truss



Fig.3 Safe parturition of twin calves at term



Progesterone has also been successfully used by Bhattacharyya *et al.*, (2012) in pre-partum vaginal prolapse in cattle. The rope truss was allowed to stay till initiation of parturition and it was removed during parturition. Lakde *et al.*, (2014) stated the rope truss as very effective, safe, non-invasive and easy method for retention of ante-partum cervico- vaginal prolapse. Further, they observed neither any complications nor difficulties at parturition after application of this technique. The cow after 85 days of intervention delivered two normal live calves (Fig. 3) weighing 27 kg and 27.4 kg, respectively. Perhaps, the increased abdominal pressure from the twin

foetuses predisposed the cow to have the vaginal prolapse since 5 months of her gestational age.

Hence, from the above experience it can be concluded that the rope truss method can effectively be applied to control recurrent pre-partum vaginal prolapse in cow without any complications and difficulties at parturition.

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