**International Journal of Allied Sciences (IJAS)**
Volume.14, Number 1; January-2023;
ISSN: 2836-3760 | Impact Factor: 7.07
https://zapjournals.com/Journals/index.php/Allied-Sciences
Published By: Zendo Academic Publishing

# A COMPREHENSIVE EXAMINATION OF DIAGNOSIS AND MANAGEMENT TECHNIQUES FOR VAGINAL AND RECTAL PROLAPSE IN COWS

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**Article Info**

**Keywords:** Rectal prolapse in cows, Vaginal prolapse management in cows, Comprehensive approach to prolapse treatment, Diuretics and anti-inflammatory drugs for prolapse, Manual replacement of prolapse in cows, Veterinary treatment of prolapse in cows

**Abstract**

A 6-year-old crossbred Jersey cow in its second trimester of pregnancy presented with a severe prolapse of the vagina and rectum. In order to address this issue, a comprehensive approach to diagnosis and management was employed. The first step taken was the administration of epidural anesthesia to reduce visceral tenesmus, which can exacerbate the prolapse. Concurrently, a combined diuretic and anti-inflammatory drug was administered with the goal of resolving the edema that often accompanies prolapse conditions. Once the animal was stabilized, the prolapse mass was carefully replaced manually, taking care to avoid damage to the surrounding tissues. Following the successful repositioning of the prolapse, a course of parental antibiotic, analgesic, and fluid therapy was administered to aid in the recovery process and prevent infection. The cow's condition was closely monitored throughout the treatment to ensure a successful outcome. The comprehensive approach employed in this case involved addressing both the immediate issue of the prolapse itself and the associated factors that can contribute to or exacerbate the condition. By using a combination of anesthesia, diuretics, anti-inflammatory drugs, manual replacement, and supportive therapies, the cow was able to recover uneventfully. This demonstrates the importance of a thorough investigation and a multi-faceted treatment plan when diagnosing and managing vaginal and rectal prolapse in cows. This case serves as an example of the effectiveness of a comprehensive approach to the diagnosis and management of vaginal and rectal prolapse in cows. By considering all aspects of the condition and employing a variety of treatment methods, a successful outcome can be achieved. Further research and investigation into this approach can help to improve the understanding and management of prolapse conditions in cows, ultimately leading to better overall health and wellbeing for these animals. In addition, this comprehensive approach may also be applicable to other species and conditions, highlighting the importance

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of continued research and development in the field of veterinary medicine.

## Introduction

Vaginal and rectal prolapse in cows are significant health issues that often require prompt intervention to ensure the wellbeing of affected animals. These conditions can have severe consequences on the reproductive performance, welfare, and longevity of cows, in addition to negatively impacting the economics of dairy and beef production (Noakes et al., 2009). In light of these challenges, it is crucial for veterinary professionals and livestock managers to be well-versed in the diagnosis and management techniques for vaginal and rectal prolapse in cows. This comprehensive review aims to provide an updated and thorough examination of the available literature pertaining to these topics, with a specific focus on recent scientific advancements and emerging practices.

Vaginal prolapse in cows, also known as vaginal eversion or hyperplasia, is a condition characterized by the protrusion of the vaginal mucosa through the vulva (Miesner and Anderson, 2008). It typically occurs during the late stages of gestation or immediately following calving, and is often associated with increased intra-abdominal pressure, hormonal imbalances, and genetic predispositions (Noakes et al., 2009). Rectal prolapse, on the other hand, involves the protrusion of the rectal mucosa through the anus and can occur in cows of any age or sex (Miesner and Anderson, 2008). Some common predisposing factors include chronic straining due to constipation, diarrhea, or respiratory distress, as well as traumatic injuries and neurological disorders (Noakes et al., 2009). The timely and accurate diagnosis of vaginal and rectal prolapse is crucial for the implementation of appropriate management strategies and the prevention of potential complications, such as infection, necrosis, and reduced fertility (Miesner and Anderson, 2008). Various diagnostic techniques have been described in the literature, including clinical examination, ultrasonography, and laboratory testing (Noakes et al., 2009). These methods allow veterinary professionals to differentiate between different types and degrees of prolapse, as well as to identify any underlying conditions that may be contributing to the problem (Miesner and Anderson, 2008).

In terms of management, several approaches have been proposed for the treatment of vaginal and rectal prolapse in cows, ranging from conservative methods, such as manual reduction and supportive care, to more invasive surgical interventions, such as purse-string sutures and amputation (Noakes et al., 2009). The choice of treatment is usually dictated by the severity and chronicity of the prolapse, as well as the overall health status and reproductive value of the affected cow (Miesner and Anderson, 2008). Furthermore, preventive measures, such as genetic selection, nutritional management, and environmental modifications, have been suggested to reduce the incidence of prolapse in at-risk populations (Noakes et al., 2009).

this study seeks to provide a comprehensive and up-to-date examination of the diagnosis and management techniques for vaginal and rectal prolapse in cows, with a focus on recent scientific advancements and emerging practices. By synthesizing the available evidence and highlighting the most effective strategies, it is our hope that this work will serve as a valuable resource for veterinary professionals and livestock managers, ultimately contributing to the improvement of cow health and welfare.

## Materials and Methods

### Case History & Clinical Observations:

A crossbred Jersey cow, 6 years old; weighing approximately 250 kg showing average body condition score (BCS = 2.5) was presented to the Veterinary Clinical Complex, College of Veterinary Science, Garividi with prolapse of vagina and rectum in its fourth month of gestation. During our first exposure, the Initial clinical examination of the cow revealed an vaginal prolapse (type II) and rectal prolapse (type II). According to anamnesis the problem has occurred since 12 hours. Both protruded organ parts were appearing as a pink to red rosette with a severe edema (Fig. 1). The prognosis depends on the severity of the case, degree of damage and contamination, duration

of its existence or how quick it is attempted with suitable treatment. The temperature was in mild hypothermia, pulse and respiratory rates were all within the reference values and mucous membranes were pink. Also, the animal has maintained a normal appetite.

**Results and Discussion**

**Treatment & Discussion:** Caudal epidural anesthesia was performed, with 6 ml of 2% Lignocaine hydrochloride (Xylocaine), in the first intent, to reduce viscera tenesmus. Both of the prolapsed tissues were gently pushed and quickly held in the pelvic cavity (Fig. 2), after the onset of anesthesia within fifteen minutes (4). Retention of the replaced rectum was made by a purse-string suture placed through the skin and deep fascia around the anus; using of a non-absorbable suture material. The calcium borogluconate, antibiotics and analgesics were administered parentally and also advised the same for five days. On the next day the case was reported again with severe eversion and edematous prolapsed rectum and vaginal tissues due to rupture of suture material. The vulval labia became edematous. Following caudal epidural anesthesia, to reduce the tenesmus, due to the severe edema; diuretic and antiinflammatory drugs (10 ml of Ridema and 10 ml of Chlorphenaramine maleate) were administered with the aim to resolve it. Both the prolapsed tissues were gently pushed and quickly held in the pelvic cavity, after the onset of anesthesia. In addition, a solution of 400 ml of calcium borogluconate was administered intravenously as a treatment against a possible hypocalcaemia given the observed hypothermia.

The inadequately nutrition management is commonly listed as a major contributing factor to the prevalence of vaginal prolapse. Feeding conduct, with high level of easily digestible energy responsible in the ruminal distention resulting from acidosis contributes to the formation of the higher intra-abdominal pressure; and on the other hand, the poor quality of the straw feeding. Both seem to be the major causal factors of this pathology. Also, the hypocalcaemia can be incriminated in this case given registered hypothermia (1). With regard to the rectal prolapse, also the increased intra-abdominal with the pressure brought about by the expansion of the uterus, are thus more likely to have precipitated the organ prolapse (3). In the present case, we have advised the owner to improve the managemental practices like increased the feeding frequency, upward elevation of rear portion of the animal, sufficient exercise, avoid poor quality straw feeding and oral administration of calcium preparation to prevent recurrence of the prolapsed tissues and thereby minimize the economical losses to the herd.

**References**

Kuijlaars, M. The occurrence of vaginal prolapse in sheep and cattle: Case Study. Ghent University Faculty of Veterinary Medicine. 2010.

Biswadeep, J., P. Nilesh kumar and P.A. Abhishe. Surgical Resection of Type II Rectal Prolapsein a Cow: Case report. Veterinary Clinical Science, 2013, October-December, 1(1): 19-23.

Miesner, M. D., & Anderson, D. E. (2008). Management of prolapses in cattle. The Veterinary Clinics of North America. Food Animal Practice, 24(3), 409–419.

Noakes, D. E., Parkinson, T. J., & England, G. C. W. (2009). Arthur's Veterinary Reproduction and Obstetrics, 9th Edition. Saunders Ltd.

Singh, P. and R. Jain. Surgical Correction of Rectal Prolapse in Buffalo. Int. J. Agric. Sc & Vet. Med. 2013, 1(4): 72-74.

Teja, A., Praveen Raj, M., Prabhakar Rao, K. Obstetrical management of Post-partum uterine prolapse in A Non - Descript Doe - A Case Report. IJSRST 2016, 2(5): 283-284.

Fig.1

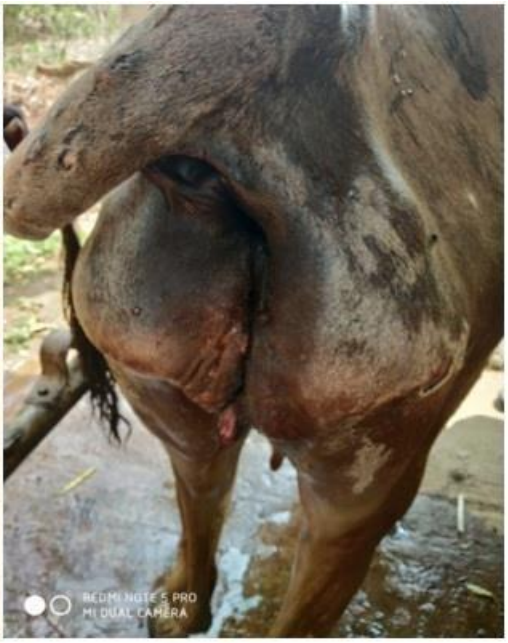


Fig.2