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Clinical management of pre-partum cervico-vaginal prolapse in an advanced pregnant Murrah buffalo

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Abstract

A Murrah buffalo in its fourth parity was presented with the history of nine-month pregnancy with cervicovaginal prolapse. The detailed gynaecological examination of the buffalo revealed whole anterior vagina and cervix hanging out from vulva with minor lacerated wound over the vaginal surface. Animal was restrained properly; vaginal mass was thoroughly cleaned after evacuation of the bladder. The prolapsed mass was repositioned into the pelvic cavity followed by retention of the prolapsed mass by horizontal mattress suture. Adequate treatment ensured uneventful recovery of buffalo without any complications.

Keywords: Advance pregnancy, Buffalo, Cervico-vaginal prolapse, Murrah

Introduction

Buffaloes are the backbone of the dairy industry, contributing 45% of milk produced in India (Annual Report, DAHD-2022-23). Cervico-vaginal prolapse is a condition that occurs in ruminants, usually during late pregnancy. Alternatively known by various names such as Throwing the rose, pushing out the button, bearing the trouble, throwing the rede and showing the rede. Cervico-vaginal prolapse is protrusion of cervix and vagina out of the vulvar lips. It is a routine obstetrical problem which decreases productive and reproductive performance by increasing length of postpartum return to estrus, reducing conception rate and increase in calving interval. It is one of the common gestational disorder of the aged female buffaloes during their last trimester of pregnancy. An important risk factor for vaginal prolapse is tissue relaxation associated with increased intra-abdominal pressure during pregnancy (Kahn *et al.*, 2005) [4]. This condition mainly affects buffaloes due to hormonal changes that occur during the last trimester of pregnancy, specifically an increase in estrogen and relaxin production that causes relaxation of the pelvic ligaments and structures surrounding soft tissue (Akhtar *et al.*, 2012; Wolfe *et al.*, 2009) [1, 10]. Some secondary factors have the ability to increase intra-abdominal pressure such as fat accumulation in the abdomen, rumen relaxation; Large fetuses, multiple fetuses and sometimes mountainous terrain also contribute to vaginal prolapse (Drost, 2007) [2]. Dietary factors such as hypocalcaemia and the presence of clover in pastures have also been linked to this disorder (Hosie *et al.*, 1991; Miesner and Anderson, 2008) [3, 6]. Irritation and swelling of vaginal mucosa after eversion tend to increase straining and formation of extensive prolapse (Kahn, 2005) [4]. The present case report detailed about management of cervico-vaginal prolapse in advanced pregnant Murrah buffalo.

Case History and Clinical Observations

A seven-year-old Murrah buffalo in her fourth parity and nine-month pregnancy was presented to the Referral Veterinary Polyclinic, ICAR-IVRI, Izatnagar, Bareilly with an anamnesis of severe straining, restlessness and a very big size of round mass protruding from vulva from past 24 hours. The vaginal mucus of protruded mass was moist, bloody black patches and soft. Also, there were signs of traumatised necrosis. Animal had not urinated since previous 12 hours because of hanging cervico-vaginal mass and obstructing the urethral opening.

Cervix was completely closed and no discharge was present. Animal showed intermittent tenesmus. Physiological vital parameters like temperature, pulse rate, respiratory rate were within the normal range.

Treatment and Discussion

General condition of animal was evaluated. The animal was placed in a trevis and the prolapsed mass was thoroughly cleaned using a 1:1000 dilution of potassium permanganate solution. To minimize straining, 2% lignocaine was used for the epidural anaesthetic at a dose rate of 1 ml per every 100 kg of body weight. POP-IN spray (Natural Remedies, Bengalore, India) is applied to the prolapsed mass to reduce its size. It was difficult to repel the mass in a standing position due to the heavy weight of the mass, so after that, the animal was taken into the grass and cast in the bedding material in right lateral recumbency. Prolapsed mass was lifted up to evacuate the urine (Fig-1) since animal had not urinated since previous day. Hindquarters were elevated around 2-2 ½ feet. The uterus was securely repelled into the pelvic cavity, initially from the base of prolapsed mass followed by whole mass was placed inside the pelvic cavity with the help of fist and hands so as to not create any tear on the prolapsed mass (Fig-3). The vulvar opening was sutured using horizontal mattress involving the tough skin portion near the vulva (Fig-4). The animal was administered with inj. RL (500 ml, I/V) and antibiotic (Ceftiofur sodium-Edfur, Vetedge Pvt. Ltd.)-700 mg I/M, antihistaminic (Chlorpheniramine maleate-10 ml I/M), anti-inflammatory (Flunixin meglumine, 12 ml I/M) with supportive therapy (Belamyl 10 ml I/M; Fluids). The antibiotic and fluid therapy was continued for 5 more days. It was recommended to spray fly repellent such as Topicure spray (Natural Remedies, Bengalore, India) to keep the perineal region and are around the sutures clean. The suture was removed after 10 days and the animal parturated after 20 days of treatment. Animal recovered uneventfully without any complications.

Prepartum cervico-vaginal prolapse is a frequently observed complication, beginning two months before parturition in buffaloes, often with a history of prolapse in previous gestations. It is associated with a plethora of factors that influence its occurrence. Hormonal disturbances influence the incidence of this condition. Hormones like estrogen and progesterone play an important role in maintaining pregnancy, and any sort of imbalance in their activity may lead to prolapse. The main cause of prolapse is thought to be the hormonal changes that occur during the last trimester of pregnancy, particularly estrogen, which relaxes the pelvic ligaments and surrounding soft structures (Thota *et al.*, 2003)^[8]. The exact etiology of uterine prolapse is not clearly understood, however hypocalcaemia (Roberts, 2004)^[7], mineral deficiency, poor uterine tone, increased straining, conditions that increase the intra-abdominal pressure including tympany, excessive estrogen content in the feed (Kumar and Yasotha, 2015)^[5]. It may be linked to hereditary traits and nutritional imbalances as well. Prepartum prolapse in which there are some days left for parturition is somehow difficult to manage because if we place sutures in horizontal fashion then it is needed to get them removed after some days and if animal initiates parturition, it becomes important to remove the suture immediately. Animals with cervico-vaginal prolapse when properly treated and managed may deliver live calf and conceive successfully in future.



Fig 1: Evacuation of urine



Fig 2: condition after cleansing of prolapsed mass



Fig 3: Repulsion of mass with fist and hands



Fig 4: placement of single horizontal mattress suture

Conflict of Interest

Not available

Financial Support

Not available

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