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Management of pre - partum vaginal prolapse in Jafferbadi buffalo

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Abstract
A Seven years old Jafferbadi she – buffalo standing in a third gestation had second degree of prolapse in buffalo unit, District livestock farm, Thanjavur, Tamil Nadu. Prolapsed vaginal mass was reduced and closure of vulval lips by horizontal mattress suture pattern under epidural anaesthesia. On next day, the parturition was induced by two doses of 500 µg cloprostenol injection and 40 mg dexamethasone with the interval of 12 hours. A live female calf was delivered with mild assistance after 22 hours from the time of induction. Animal was recovered uneventfully.

Keywords: Jafferbadi, vaginal prolapse, Buhner's suture, parturition

Introduction
Vaginal prolapse is protrusion of vagina out through the vulval lips. It is one of the reproductive disorders of the mature female buffaloes during their last trimester of pregnancy. This condition mostly encounter the buffaloes due to the hormonal changes that occur during this last trimester of pregnancy, especially the increase of estrogen and the production of relaxin cause a relaxation of the pelvic ligaments and surrounding soft tissue structures (Wolfe, 2009) [7]. Important predisposing factor for vaginal prolapse is tissue relaxation with the increased intraabdominal pressure during pregnancy (Kahn 2005) [4]. Some of the minor factors have capacity to increasing the intra-abdominal pressure such as intra-abdominal fat accumulation, rumen distention; large foetuses, more than one foetus and the occasionally hilly terrains also make their contribution to the occurrence of vaginal prolapse (Drost, 2007) [2]. Dietary factors such as hypocalcaemia and clover in grazing pastures have also been linked to the disorder (Miesner and Anderson, 2008) [5]. A vaginal prolapse begins just cranially of the vestibulovaginal junction as a folding of the vaginal floor. Irritation and swelling of vaginal mucosa after eversion tend to increase straining and formation of extensive prolapse (Kahn 2005) [4]. A vaginal prolapse may not directly be considered an emergency but, if not treated, the vagina becomes swollen, oedematous and congested and is therefore very susceptible to injury (Hosie, 1989) [3].

Case History and Clinical Observation
A seven years old Jafferbadi she – buffalo standing in the third gestation rearing in the buffalo unit, District livestock farm, Thanjavur, Tamil Nadu had second degree of vaginal prolapse in which vagina is constantly prolapsed with intermittent forceful tenesmus. Per vaginal examination revealed that the cervix was intact in the pelvic cavity but vagina alone protrudes out between the vulval lips. Per rectal examination indicated that live foetus was in anterior presentation and dorsosacral position near to parturition. Gross examination showed that the pelvic ligaments were relaxed and vaginal mass protrudes between the two vulval lips. All the clinical vital parameters were within the normal range.

Treatment and discussion
Animal was properly restrain in a trevis and repositioned the prolapsed vagina in original anatomical position after thoroughly washed with potassium permanganate solution at the dilution rate of 1: 1000 under epidural anaesthesia done with 2% lignocaine at the dose rate of 1 ml for 100 kg body weight to reduce straining. Horizontal mattress suture was applied. On the next day, vulval lips got tear at the place of suture due to the straining caused by the abdominal pressure. To prevent the further complication, parturition was induced by two doses of 500 µg cloprostenol injections with the interval period of 12 hours and single dose of 40 mg dexamethasone.

After 22 hours from the initial time of induction, a live female calf was delivered with mild assistance. Foetal membranes were removed manually and again repositioned the prolapsed vagina to the normal position. The vulval lips were closed by buhner's purse string suture by using jerlac needle and vulval retention tape. Postoperatively, animal was treated with inj. Ringers lactate @ 10ml/kg body weight i.v, inj DNS @10 ml/kg body weight i.v, inj ceftriaxone 10 mg/kg bodyweight i.m, inj. Meloxicam @ 0.5mg/Kg body weight i.m, inj. Chlorpheniramine maleate @ 0.5mg/ Kg body weight i.m continuously for five days. Animal attendant was advised to kept the hind quarter of animal at elevated level and provide less quantity of green roughage combine with required quantity of dry roughage and concentrate until the involution of uterus occurs.

Vaginal prolapse is the common reproductive problem in buffaloes during the third trimester of pregnancy. During the last stage of pregnancy, High plasma estrogen level initiates the relaxation of muscles and ligaments in pelvic region where as the low plasma calcium level decrease the tonicity and loosening of muscles of genetic tract make the animal easily prone to prolapse. The increasing of serum estradiol concentration with decreasing in progesterone concentration as a cause of vaginal prolapsed in affected buffalo has also been reported by Akhtar *et al*., (2012) [1] and cow (Vincenti *et al*., 1992) [6]. In the present case, Jafferbadi buffalo has been met with prolapse since first calving onwards. Therefore, cause of this vaginal prolapse may be gentical cause.

Fig 1: Photograph showing prolapsed vagina after sutured in buffalo

Fig 2: Buhner's purse string suture after delivered the foetus

Fig 3: Photograph shows Jafferbadi buffalo and after recovery from vaginal prolapse

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