MANAGEMENT OF ANTE PARTUM VAGINOCERVICAL PROLAPSE IN A GRADED MURRAH BUFFALO

Sengodan Raja*, Mahakrishnan Palanisamy, Vaiyapuri Prabaharan, Ramasamy Rajkumar and Ponnusamy Jayaganthan

ABSTRACT

The present communication reports a case of ante partum vaginocervical prolapse in a full term pluparious graded Murrah buffalo and its successful management by induction of parturition.

Keywords: *Bubalus bubalis*, buffaloes, induction, parturition, vaginocervical prolapse

INTRODUCTION

Reproductive performance of buffalo is reduced due to diversed diseases of the reproductive system, including genital prolapse (Akhtar *et al*., 2012). Antepartum vaginal prolapse is one of the major reproductive disorders in buffaloes (Azawi, 2010). Prolapse of the vagina alone or along with cervix is one of the common gestational problem in buffaloes when compared to the other species. The etiology for this antepartum vaginocervical prolapse are increased estrogen secretion towards end of gestation, heredity, mineral deficiency, increased intra abdominal pressure, atony of vaginal muscles, relaxation of pelvic and sacrosciatic ligaments, infectious, hormonal and phytoestrogens etc., (Roberts, 1971). The present case describes a third degree antepartum vaginocrervical prolpase and its successful management by induction of parturition.

CASE HISTORY AND OBSERVATION

A full term graded pluriparous Murrah buffalo was presented to the Large Animal Obstetrical Unit of Veterinary Clinical Complex, Veterinary College and Research Institute.

Orathanadu with the history of prolapsed mass through the vulva initially for past three days and treated locally without any progress. On clinical examination the animal was active with the vital parameters such as pulse rate, respiratory rate and rectal temperature were 80 per minute, 21 per minute and 101.9^{o}F. On clinical observation the vagina and cervix was protruded with intact cervical seal (Figure 1). Intermittent intense straining could be observed. On rectal examination the fetus could be palpable with positive reflex and intense fremitus. Edematous vulval lips along with relaxation of pelvic and sacrosciatic ligaments were also appreciated based on the clinical observations the animal was diagnosed as third degree vaginocervical prolapse with nearing parturition.

Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, India, *E-mail: argoraja@gmail.com

TREATMENT AND DISCUSSION

Initially the animal was administered with 5 mL of 2% Lignoaine Hrdrochloride as epidural anaesthesia to reduce the straining. The urinary bladder was emptied by using two way urinary catheter and 1.5 litres of urine was relieved. Then the prolapsed mass was washed with potassium permanganate (1:1000) solution and examined for any laceration in the mucous membrane. The edema of the prolapsed mass was reduced by washing with hypertonic solution for ten minutes. Followed by the prolapsed mass was gently pushed in to the pelvic cavity. The recurrence was prevented by simple tape vulval retention suture (Figure 2). Since the animal was full term pregnant and parturition signs were evident for nearing parturition, the animal was induced for parturition using $PGF_{2\alpha}$ 500 µg IM (Cloprostenol sodium equivalent to 263 µcg/ml-Pragma) and Dexamethasone sodium phosphate 24 mg Intramuscularly (Jeyakumar *et al*., 2004). Within 35 h of intervention the animal started straining and water bag was in birth canal. By removing the vulval retention sutures, vaginal examination revealed the fetus was in anterior Longitudinal presentation, Dorso scaral Position with extend fore limbs. By gentle traction live male calf was delivered. Followed by the animal was administered with Inj. Streptopenicillin (5.0 gm, i/m), Inj. Meloxicam (150 mg, i/m), Inj. Chlorpheniramine maleate (300 mg, i/m), Inj. Oxytocin (40 IU, i/v), Inj. Calcium borogluconate (450 ml, i/v) and Bolus. Uromet (Neospark) as intrauterine between intercaruncular region). The vulval suture was tied as a precautionary measure to prevent recurrence of prolapse. Oral herbal ecbolic (Liquid. *Utrevive* Virbac) was administered 200 mL/day for five days. The placenta was shed normally after 18 h of calving. The postoperative care with antibiotic, antihistamine was continued for five days. On third day of vaginal examination, the cervix was two fingers relaxed and the vulval suture was removed. The animal had an uneventful recovery on the fifth day.

Anteartum vagino cervical prolapse is commonly noticed even from 2 months prior to parturition onwards. However lower levels of serum calcium and phosphorous is noticed in prolapsed buffaloes suggesting minieral deficiency could play an important factor in etiology. Around 63% of buffaloes had a history of vaginal prolapse in previous gestations. (Sah and Nakao, 2003). Depends on the influences of the etiological factors and the management, the degree of the anteparum prolaspe is categorized. Based on the degree of prolapse the management and treatment approach is determined. The life of the fetus has to be ensured and guaranteed to maximum when selecting the treatment protocols. However depends on the severity of the case the approach can compromise the viability of the fetus in order to save the live and future fertility of the dam. In such conditions if the gestation period is less than one month due, the pregnancy can be terminated. Often selection of treatment protocols such as managemental care (Rope truss method, altering feed intake and confinement), vulvar sutures (simple vulval tape retention suture, Burried Purse string suture) (Sarma *et al*., 2017) and termination of pregnancy (two weeks before the calving date) or induction of parturition (last 10 days of gestation) using Prostagalabins and Corticosteroids are to given importance according to the severity of the case. The different approach for vagino cervical prolapse is briefed in Table 1. However life of premature calf cannot be ascertained at any stage of termination or induction.

Table 1. Different treatment protocols for antepartum vaginocervical prolapse in buffaloes.

Condition	Stage of pregnancy	Remarks
1 degree	Last <2 weeks of gestation	Managemental care
	Last >2 weeks of gestation	Managemental care + vulval suture
2 degree	Last <2 weeks of gestation	Managemental care + vulval suture
	Last >2 weeks of gestation	Managemental care + vulval suture
	If severe straining	Epidural with Lignocaine + Xylazine
3 degree	Last <2 weeks of gestation	Managemental care + vulval suture
	If straining continued	Induction of parturition
	Last >2 weeks of gestation	Managemental care + vulval suture
	If severe straining	Managemental care + Bhuners vulval suture + Epidural Lignocaine + Xylazine
	If severe straining persist	Termination of pregnancy
4 degree	Any stage	Termination of pregnancy

Figure 1. Third degree vagino cervical prolapse.

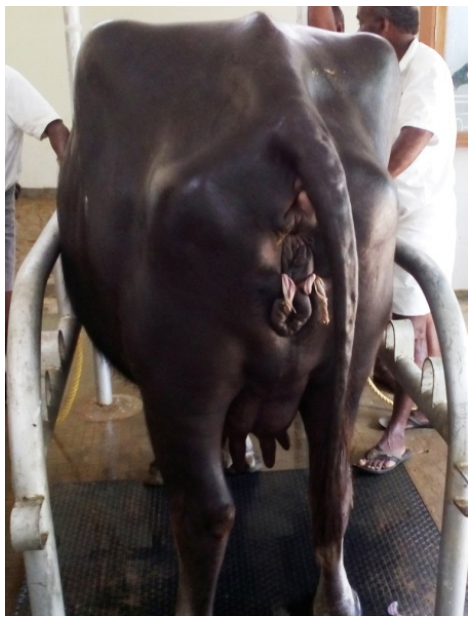

Figure 2. Simple tape vulval retention suture.

REFERENCES

Akhtar, M.S., L.A. Lodhi, I. Ahmad, Z.I. Qureshi and G. Muhammad. 2012. Serum ovarian steriod hormones and some minerals concentration in pregnant Nili-Ravi buffaloes with or without pre-partum vaginal prolapse. *Pak. Vet. J.*, **32**(2): 265-268. Available on: http://www.pvj.com.pk/pdf-files/32_2/265-268.pdf

Azawi, O.I. 2010. Uterine infection in buffalo cows: A review. *Buffalo Bull*., **29**(3): 154-171. Available on: https://ibic.lib.ku.ac.th/e-bulletin/2010-154.pdf

Jeyakumar, S., S. Balasubramanian, T.G. Devanathan and K. Kulasekar. 2004. Antepartum vaginocervical prolapse and its management using combination of PGF2 α and dexamethasone in buffaloes. *Buffalo Bull*., **23**(3): 51-52. Available on: http://ibic.lib.ku.ac.th/e-Bulletin/IBBU200400008.pdf

Roberts, S.J. 1971. *Veterinary Obstetrics and Genital Diseases (Theriogenology)*, 2nd ed. CBS Publishers and Distributers, India. p. 189-196.

Sah, S.K. and T. Nakao. 2003. Some characteristic of vaginal prolapse in Nepali buffaloes. *J. Vet. Med. Sci*., **65**(11): 1213-1215. DOI: 10.1292/jvms.65.1213

Sarma, D.K., A. Das and N. Nath. 2017. Management of pre-partum vaginal prolapse in a Crossbred cow with rope truss method. *International Journal of Current Microbiology and Applied Sciences*, **6**(11): 1067-1070. DOI: 10.20546/ijcmas.2017.611.125