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## SURGICAL MANAGEMENT OF CHRONIC CERVICO-VAGINAL PROLAPSE IN RATHI CATTLE

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**ABSTRACT:**

The successful surgical resection of prolapsed mass in a chronic case of cervico- vaginal prolapse, unresponsive to conventional treatment in a Rathi cow was recorded here.

**KEY WORDS:** *Surgical management, Chronic, Cervico-Vaginal, Rathi Cattle.*

**INTRODUCTION:**

Genital prolapse in ruminants is considered as an emergency maternal disorder that needs immediate attention to avoid any further complication that possibly can lead to a poor prognosis (Yimer *et al.*, 2016). It may be defined as the protrusion of varying parts of the vaginal wall and sometimes the cervix through the vulva so that the vaginal mucosa is exposed (Noakes, 2011). The incidence and symptoms have been extensively elaborated in cows (Arthur *et al.*, 1989). The prognosis depends upon the type of case, the duration of exposure of the prolapsed mass and the degree of trauma inflicted upon the prolapsed mass (Kumar, 2005). The present report describes the surgical management of chronic case of cervico-vaginal prolapse in Rathi cow managed by resection of prolapsed mass.

**CASE HISTORY AND CLINICAL OBSERVATION:**

A ten year old Rathi cow was presented to HPVK, LUVAS, Uchani (Karnal) with primary complaint of cervico-vaginal prolapse (Fig. 1). Cow had a history of suffering from cervico- vaginal prolapse since second trimester of

pregnancy and subsequently aborted the fetus at sixth months of gestation. Cow was treated medicinally by referring veterinarian and retention sutures were applied to vulvar lips which got lost in due course of time and prolapsed mass reoccurred with more severity about 15 days ago. Cow was anorectic with difficulty in defecation and urination since two days. On clinical examination pulse rate was slightly elevated and other physiological parameters were within normal range value. On the basis of classification of vaginal prolapse (Kishore and NAKAO, 2003) and severity of condition, the present case was diagnosed as a fourth degree chronic cervico-vaginal prolapse (Vagina and cervical os were protruding through vulvar lips, prolapsed mass was hard, fibrosed and cyanotic). Hematological and biochemical analysis of serum sample was performed.

### **RESULT AND DISCUSSION:**

As cow was straining continuously so analgesia was achieved by administration of Xylazine (@ 0.05 mg/kg bodyweight) as a sedative and 2% Lignocaine hydrochloride (7ml) as epidural anesthesia. Prolapsed mass was washed with 1% Potassium Permanganate solution and urine was drained by raising the prolapsed mass. Calcium borogluconate (20%, 450 ml) was slowly administered intravenously. Reposition of prolapsed mass could not be achieved by multiple attempts due to hardening, fibrosis, injuries of prolapsed mass, as reported earlier also (Nayak and Samantara, 2010). Various techniques like mattress suture, vulvoplasty by Caslick method, application of Buhner suture had been used for management of such chronic cases (Amaresh Kumar, 2005). Hence, in the present case surgical resection of prolapsed mass was chosen as the injuries were gross and replacement was not possible (Mahida, 2008). Cow was restrained in right lateral recumbency. Catheterization of urinary bladder was done by catheter No. 20 for drainage of urine and for location of urinary passage during the procedure. Prolapsed mass was incised using thermocautery with simultaneous ligation of bleeding vessels. Finally both the mucosal walls were opposed with continuous suture pattern (Fig. 2) using Truglyde No. 2 (Polyglycolic acid, Sutures India). A flushing tube was kept inside the closure for daily flushing with 5% Povidine iodine solution for five days. Rope truss was applied and cow was treated with Ceftriaxone 3gm Intramuscularly (I/M), Melonex 5mg/kg bodyweight I/M, Pheneramine maleate 10 ml I/M, Multivitamin 10 ml I/M for five days. The hemato-biochemical parameters were in physiological range except raised TLC (Table No. 1). Leukocytosis might be due to profound inflammatory response to the cervico-vaginal prolapse (Padheriya *et al.*, 2016). Unfortunately cow collapsed three days post-operatively may be due to onset of septicemia. Vaginal tissue relaxation, loosening of uterine ligaments, fat deposition and more number of calving were considered as the predisposing factors for chronic vaginal prolapse (Noordsy, 1994).

### **CONCLUSION:**

Negligence and delayed treatment of prolapsed mass may cause irreparable damage to the reproductive organs leading to infertility and economic loss. Hence, timely and appropriate interventions are required for restoration of fertility and to minimize the losses.

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**Table No. 1: Hematological and Biochemical parameters**

Parameters	Value
Hb (Hemoglobin g %)	9.7
PCV (Packed cell volume %)	32
TEC (Total erythrocytic count, $\times 10^6$ )	5.11
TLC (Total leucocyte count)	20,400
Ca (Calcium, mg/dl)	9.0
P (Phosphorus, mg/dl)	6.4

**Fig. 1: Chronic cervico-vaginal prolapse****Fig. 2 Post-operative after resection of prolapsed mass**