



## **Surgical correction of vaginal cystocele in non-descript cow: A case report**

**Rajesh Kumar<sup>1</sup>, S. Jaisawal<sup>2</sup>, S. Srivastava<sup>3</sup>, Pushkar Sharma<sup>4</sup>, V. Gautam<sup>4</sup> and Amit Kumar Sachan<sup>5</sup>**

Department of Veterinary Gynecology and Obstetrics, C.V.Sc. & A.H., NDUAT, Kumarganj, Faizabad, UP. 224229.

1. Assistant Professor, Deptt. of Veterinary Gynaecology and Obstetrics, Faizabad, UP
2. Associate Professor & Head, Deptt. of Teaching Veterinary Clinical Complex, Faizabad, UP
3. Associate Professor & Head, Deptt. of Veterinary Gynaecology and Obstetrics, Faizabad, UP
4. M.V.Sc. Scholar, Deptt. of Veterinary Gynaecology and Obstetrics, Faizabad, UP
5. M.V.Sc. Scholar, Deptt. of Veterinary Surgery and Radiology, Faizabad, UP

### **ABSTRACT**

*A 6 year old nondescript postpartum cow was presented at TVCC, C.V.Sc. & A.H., NDUAT, Kumarganj, Faizabad with history of parturition one day back. A Large ball like structure appear at the vulvar opening. Clinical examination reveals that bladder is prolapsed through ruptured floor of vagina. On the basis of history and clinical examination the case was diagnosed as vaginal cystocele. In order to abolish straining epidural anesthesia given (Lignocaine hydrochloride 2%, 5 ml) in sacro-coccygeal space. The prolapsus was washed with potassium permanganate solution(1:1000), along with removal of all debris. The bladder is replaced at their anatomical site. The floor of vagina is repaired as per standard procedure. After a course of supportive therapy along with antiseptic dressing of floor of vagina. The suture were removed after ten days. The cow had an uneventful recovery, and no further recurrence was reported.*

*Keyword: vaginal cystocele, sacro-coccygeal*

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### **INTRODUCTION**

Vaginal cystocele is the name given to a condition occasionally encountered in the parturient mare and cow in which the urinary bladder lies in the vagina or vulva. Usually it is two types, prolapse of the bladder through the urethra, this condition is more likely in mare consequent on the great dilatibility of the urethra and the force of straining efforts and other is protrusion of the bladder through a rupture of the vaginal floor, in this condition the bladder will lie in the vagina and it will further differ from the previous one in that the serous coat of the organ will be outermost. It is important to differentiate both the bladder and uterus. This is particularly the case in the mare and rare in cattle, where the prolapsed bladder and velvety (villous) surface of the allantochorion is very similar (red bag). In both conditions the first aim is to overcome straining; this is the best effected by the induction of epidural anesthesia with or without sedation.

### **HISTORY AND CLINICAL OBSERVATION**

A 6 year old nondescript postpartum cow was presented at TVCC, C.V.Sc. & A.H., NDUAT, Kumarganj, Faizabad with history of parturition one day back. The case was treated by quack without any response. On visual inspection, it was found that a large ball like structure appear at the vulvar opening. Clinical examination reveals that the organ was a bladder, which was prolapsed through ruptured floor of vagina. The bladder was filled with urine and punctured with a hypodermic 16 gauge needle in order to empty the same. The general parameters were recorded as rapid and weak pulse, rapid respiration, pale mucus membrane, severe depression, anorexic and restlessness.

## TREATMENT

The cattle was treated as an emergency case under epidural anesthesia (lignocaine hydrochloride 2% @ 5 ml) to relief in overcome frequent straining, Epidural anesthesia will greatly facilitate return of the protruded organ. The Cow was casted at recumbent position; bladder was wrapped in a large towel to prevent further contamination. Preliminary administrated of calcium borogluconate @ 450 ml (I/M and S/C route) to relieve ruminal tympany. The prolapsed was washed with potassium permagnate solution (1:1000) [4], alongwith removal of all debris. The surface of the bladder is cleaned and the bladder is punctured with 16 gauge needles to allow drainage of urine, then dressed with an antibiotic powder and gently pushed back into place through the vaginal rupture. The ruptured vaginal floor is repaired with chromic catgut No.2 with the help of vaginal speculum, about an hour later epidural anesthesia is repeated (lignocaine hydrochloride 2%, 5 ml mixed with 0.1 ml Xylazine) for long time effect, to avoiding recurrence of prolapse, vulvar suture was applied, parental and oral therapy was given as Inj.Floxidin 10 % (Enrofloxacin 100 mg/ml, MSD, @7.5mg/kg bwt, Inj. Anistamin (chlorpheniramine maleate 10mg/ml, Intas pharmaceutical Ltd @ 0.25 – 0.5 mg/kg, but, I/M), Inj. Metaway (Butaphosphan 100mg/ml and cyanocobalamine 60 mg/ml, Mankind Ltd, 10-25 ml, I/M), Inj. Spamovet (10mg/ml Dicyclomine, Wockhardt, 30 ml, I/M). Powder Biobloom (5 gm, *Lactobacillus sporogenes*, *Saccharomyces cerevisiae*, enzymes, minerals, zydusAhl, BD orally). Vulvar suture was removed after 7 days.

## RESULT AND DISCUSSION

The case was followed for one month. Uneventful recovery occurs without any recurrence. Arthur *et al.* [1] reported that the rounded organ protrudes after parturition, the kink that forms in the urethra prevents micturition: thus the organ progressively distended with urine. The condition must be distinguished from prolapse of vagina, cyst or tumour of the vagina, hematoma of the vulve and prolapse of peri-vaginal fat. Brunson, (1961) demonstrated that protrusion of the bladder may follow a rupture in the floor of the vagina or prolapse through the dilated urethra.

Prominent straining if occurs for the expulsion of the fetus, results in heavy pressure made by fetus upon bladder, it constricts the fetal birth canal at parturition time and then bladder made a tear in the vaginal floor. The Situation is confusing, if it was treated like uterine prolapse, bladder was must be ruptured due to heavy pressure applied for reposition, because bladder is overloaded with urine at time of protrusion thus it is looked like uterus, if not then tearing of vaginal floor is not possible due to less tonicity or flexibility of bladder. Thus, differential diagnosis occur to observe the appearance of blood vessels upon bladder, when the bladder is filled then the wall is thin (like a wall of the hard balloon when fully filled with water) otherwise in the uterine prolapsed wall is thick and Duffy, If we tap upon it, fluid movement is also experienced.



Fig.1 Prolapsed bladder



Fig.2 Drainage of urine through hypodermic needle



Fig.3 Surgical correction of vaginal cystocele (Postoperative picture)

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