Surgical Correction of Chronic Cerivco-VaginalProlapse in a Red Sindhi Cow through Intravaginal approach

S. Nayak* and S. Samantara

Department of Veterinary Surgery & Radiology,
College of Veterinary Science & Animal Husbandry,
Orissa University of Agriculture and Technology, Bhubaneswar - 751 003, Orissa, India.
* Corresponding author

Introduction

Incidence of chronic prolapse or eversion of vagina in ruminants is considered to be due to weakness of uterine ligaments and vaginal tissue relaxation particularly in pluripara animals and excessive deposition of perivaginal fat of hereditary predisposition (Noordsy, 1994). Chronic prolapse of vagina is often accompanied by tenismus resulting from cervicitis, vaginitis, abscess of the Bartholin glands and traumatic wounds in the exposed part. Chronic prolapse of vagina is often corrected by suture techniques like lacing closure of vulva, purse string closure, mattress closure, closure by Caslick's vulvoplasty (Oehme and Prier, 1974 and Amaresh Kumar, 2005). Buhners perivaginal suture technique, cervical fixation technique (Winkler, 1966) and Modified Minchev method of fixation of perivaginal tissue (Noordsy, 1994.) have been used as conventional internal fixation procedures .In western countries cases having chronic vaginal prolapse are generally sent for slaughter. Record on amputation of uterus in ruminant is scanty (Gibbons, 1970, Oheme and Prior, 1974, Tyagi and Singh, 1993 and O'Connor, 2005) for keeping the animal on religious ground. The present report deals on the technique for surgical correction of a case of chronic prolapse of uterus and cervix in a Sindhi cow by amputation of prolapsed mass through intravaginal approach.

Case History and Clinical observation

A 16yrs old Red Sindhi obesed cow in good health weighing about 350 kg was showing sign of recurrent prolapse of vagina and cervix since last two and half years following calving. The prolapsed mass was reduced and retained by application of Flessa suture for 2 - 3 times with courses of antibiotics and progesterone injections but due to constant irritation and straining the methods of treatment was unsuccessful. The religious thought of the owner did not allow the cow to be disposed for slaughter. The prolapsed mass remained traumatic and infected most of the time; as a result large amount of fluid more than 3 litres was being lost daily from the exposed prolapsed mass. As per the owners request the cow was approached for surgical correction through amputation of prolapsed mass.

Treatment and Discussion

The cow was kept without food and water for a period of 24 hrs. It was restrained in right lateral recumbancy. Epidural anaesthesia was achieved with 20 ml of lignocaine hydrochloride. Two ml xylazine hydrochloride (40mg) was injected intramuscularly. The prolapsed mass was cleaned thoroughly with luke warm normal saline solution. The rectum was evacuated using douche prior to operation. A polythene catheter was kept inside the urethra for the drainage of urine and for the location of the urinary passage during the operation. The vaginal wall was incised upto a length of 6 inches (15 cms) on the dorsal surface of the prolapsed cervix. Hand was introduced into the pelvic cavity. The prolapsed mass of intestine was pushed back into the abdominal cavity. Both the horns of the uterus beyond the ovaries were grasped leaving the ureters away from the site by feeling. The portion was mobilized out of the pelvic cavity for visualization of fallopian tubes where both were ligated snugly with the help of vetafil sutures. The distal part of the fallopian tubes beyond the ligature was also ligated and amputations of the stumps were made between both the ligatures. The amputed uterine horns were everted and brought out through the vaginal incision site. The prolapsed portion of the vagina and cervix were everted by application of moderate traction and maximum portion of prolapsed mass to be excised was mapped out by placing a row of vertical mattress retention sutures with the use of vetafil. The prolapsed mass beyond the retention sutures was gradually

excised with simultaneous ligation of bleeding vessels .Finally both the mucosal walls were apposed with interrupted suture using No. 2 chromic catgut. Further to minimize the vulval aperature about two third of its length from its upper commissure were apposed adopting Caslicks technique (Nordsy, 1974). To acieve strong adhesion between the tissues the amputed site of the vagina was fixed with the Caslicks closure of the vulval wall. A drainage tube retained inside the urinary bladder and a flushing tube was kept inside the closure.

Normal saline (3 litres) and RL (3 litres) were injected intravenously during the operation. Streptopenicillin 20 lakh was given twice daily for a period of 6 days intramuscularly. Metronidazole (2%) 200 ml. was infused intravenously daily for three days. Meloxicam 10ml was given once daily for a period of 2 days intramuscularly. The site was applied with fly repellent preparations and kept under a cloth cover. The animal was kept on an inclined platform with the hindquarters elevated in order to reduce pressure on the suture line from the possibility of straining. Povidone Iodine solution (5%) was infused into the tissue for a period of 10 days. Catheter for drainage of urine was removed on 10th post operative day. The vulvoplasty sutures were removed on 14th postoperative day. The cow had an uneventful recovery with normal appetite, defecation and urination during an observation period of six months postoperation.

Vaginal tissue relaxation as well as loosening of uterine ligaments, fat deposition and more number of calving were considered to be the causes of such chronic vaginal prolapse in the present case which agrees with the views of Noordsy, 1994. Modified Minchev method of fixation of genital tract as well as Winkler method of cervoplexy technique could not be considered for correction of prolapsed organ in consideration with the severity of surgery as well as reluctancy of the owner (Noordsy, 1994). Amputation of genital tract along with Caslick's vulvoplasty was considered as a suitable choice for the closure of pelvic outlet against the possibility of further hernia due to straining. The technique for spaying in large animal as suggested by Tyagi and Singh, 1993 and O'Conner, 2005 has been followed in the present technique for the amputation of genital tract of the cow, with an uneventful recovery.

References

1. Gibbons,W.J., Catcott,E.J. and Smithcors,J.F. (1970). Bovine Medicine and Surgery, 1st Edn., American Veterinary Publications, Inc., Illinois, Pp. 815 - 822.
2. Kumar, A. (2005). Veterinary Surgical Techniques, 1st Edn., Vikas Publishing House Pvt. Ltd., New Delhi, Pp. 361- 365.
3. Noordsy, J.L. (1994). Food Animal Surgery, 3rd Edn., Veterinary Learning Systems Co., INC., New Jersey, Pp. 189 - 198.
4. O'Connor, J.J. (2005). Dollars Veterinary Surgery, 4th Edn., CBS Publication, New Delhi, Pp. 409-412.
5. Oehme,F.W and Prier,J.E. (1974). Text Book of Large Animal Surgery, 1st Edn., The Williams and Wilkins Co., Baltimore, Pp. 516 - 521.
6. Tyagi,R.P.S. and Singh,J. (1993). Ruminant Surgery, 1st Edn., CBS Publishers and Distributers, Delhi, Pp. 284 - 298.
7. Winkler, J.K. (1966). Repair of the bovine vagina prolapse by cervical fixation, Journal of American Veterinary Medical Association, 149: 768.

* * * * * * * *