

MANAGEMENT OF POST-PARTUM BILATERAL UTERINE PROLAPSE IN A CROSS BRED CATTLE: A CASE REPORT

A.K. AHUJA*, V.K. SINGLA, S. SINGHAL and SHIV KUMAR

Department of Veterinary Gynaecology and Obstetrics, College of Veterinary Sciences
Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India

Received: 31.07.2016; Accepted: 27.10.2016

ABSTRACT

Uterine prolapse is a common obstetrical problem, which adversely affects reproductive and productive performance of cattle by delaying the postpartum return to estrus, conception rate and calving interval. In the present case, replacement of both prolapsed horns was successfully done in a three years old cross-bred cattle. Under epidural anesthesia and proper lubrication the prolapsed uterine horns were repositioned and Buhner's sutures were applied at vulva. The sutures were removed after 14 days without any evidence of infection.

Key words: Bilateral uterine prolapse, Buhner's sutures, epidural anesthesia

Post-partum prolapse of uterus is an obstetrical complication that occurs 48 to 72 h after parturition (Arthur, 1996; Roberts, 1971). It usually occurs in third stage of labor in the cow (Joseph *et al.*, 2001). In crossbred cattle, prolapse of uterus is usually associated with hypocalcaemia. Main causative factors that lead to uterine prolapse are excessive straining, poor uterine tone, increased intra-abdominal pressure, tympany and excessive estrogen content in the feed (Hanie, 2006; Jackson, 2004). The incidence rate of 0.3 to 0.5% of uterine prolapse has been reported (Luktuke and Chaudhary, 1965). Hormonal changes occurring before parturition such as increase in levels of estrogen and relaxin hormone lead to relaxation of pelvic ligaments and softening of cervical canal, which predisposes the animal for prolapse. The present case deals with the study of bilateral uterine prolapse (Fig. 1) in a primiparous cross-bred cow and its successful therapeutic management.

A crossbred cow of three years of age was presented with post-partum uterine prolapse. Clinical examination revealed uterine prolapse to be bilateral. After giving caudal epidural anesthesia (5 ml of 2% Lignocaine HCl), the whole prolapsed mass was washed with weak potassium permanganate solution (0.1 % KMnO_4) to remove the debris. To decrease the edema and reduce the size, cold water was poured on the mass. Catheterization of the urinary bladder was done to evacuate the bladder. Herbal POP-IN spray was applied to reduce the edema. This procedure was repeated three times in order to reduce the size of both prolapsed horns.

The prolapsed uterine mass was held on a clean and moist piece of cloth. With gentle pressure applied on the ventral floor of the vagina in the form of fist supported by bilateral pressure, the prolapsed mass was pushed back into the pelvic cavity till complete repositioning of the uterine horns which was later assessed by per-rectal examination. Once the prolapsed mass was reposed inside, a mixture of Lignocaine jelly and Soframycin ointment was applied to reduce sensation of uterus there by reducing the straining and providing the antibacterial cover.

After reposing the prolapsed mass inside the pelvic cavity, Buhner's sutures were applied on the vulva using a bandage dipped in betadine solution (Fig. 2). The animal was treated with antibiotic Ceftiofur 2 mg/kg b. wt. I/M; NSAID. Tolfine 15 ml I/M (4 % w/v Tolfenamic acid/ml); antihistaminic. Avlin 10 ml I/M (Chlorpheniramine maleate). Tonophosphan 15 ml I/M (Sodium salt of 4-Dimethylamino-2 methylphenyl-phosphinic acid); Repronol 10 ml I/M (vitamin E and selenium) and I/V fluid therapy. Dextrose saline 1800 ml/day; Mifex 450 ml slow I/V (Calcium boro-gluconate). The prescribed treatment was repeated for three days excluding Mifex.

Among reproductive disorders, prolapse of reproductive organs occurs as a common gestational accident. The ruminants are predisposed to post-partum uterine prolapse due to the long myometrium contractions, violent straining, low plane of nutrition, hypocalcaemia, relaxed atonic flaccid uterus, lack of exercise and extreme laxity of perineum and vulvar lips etc. (Roberts, 1971; Noakes *et al.*, 2001; Kumbhar *et al.*, 2009). Post-

*Corresponding author: ankit.ahuja1947@gmail.com



Fig 1. Bilateral uterine prolapse in a crossbred cattle



Fig 2. Buhner suture

partum uterine prolapse is more common than the pre-partum prolapse mainly because of abrupt release of increased intra-abdominal pressure, uterine inertia and loss of muscular tonicity (Noakes *et al.*, 2001). In this case the underlying cause was evaluated to be the absolute oversize of the fetus and the low nutritional status of dam. The lower calcium, lower phosphorus and higher magnesium serum concentration were also observed in buffaloes suffering from uterine prolapse (Ahmed *et al.*, 2005; Akhtar *et al.*, 2008). Common

squeal to the uterine prolapse can be hemorrhagic shock, septic metritis, infertility or death. Immediate and proper treatment of this condition not only saves the life of animal but also the future fertility of the animal.

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