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Management of Cervico-Vaginal Prolapse with Abortion in a Buffalo: A Case Report

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Abstract: Cervico-vaginal prolapse was reported in a she buffalo aged 6 years**.** The cervico-vaginal prolapse is very common in buffalo but along with abortion, it was more complicated and challenging task because of continuous straining by the animal however finally removed the dead fetus and fetal membrane and repositioned the prolapsed mass successfully. The recurrence was prevented by using deep horizontal mattress technique. A good prognosis is assured with prompt replacement of prolapsed mass with sufficient care.

Keywords: abortion, buffalo, cervico-vaginal prolapse, management.

I. INTRODUCTION

The "Prolapse or eversion," refers to the irregular repositioning of an organ from its usual anatomical location. A variety of diseases of the reproductive system, including genital prolapse, reduced reproductive performance of buffalo (Akhtar *et al.*, 2012). Compared to other species, prolapse of the vagina alone or along with the cervix is one of the most common gestational problems in buffaloes. Generally, vaginal prolapse is characterized by prolapse of the vaginal roof through the vulva, with the cervix and uterus caudally displaced (Roberts, 1971). The incidence of prolapse in buffaloes has been reported to be 43% (Samad *et al.*, 1987). A number of factors contribute to this cervico-vaginal prolapse, including an increase in estrogen secretion towards the end of the pregnancy may causes greater relaxation of pelvic structure, heredity, mineral deficiency, hypocalcaemia causing atony of genetalia, elevated intra abdominal pressure, atony of vaginal muscles, relaxation of pelvic and sacrosciatic ligaments, chronic illness, hormones and phytoestrogens etc. (Roberts, 1971; Risco *et al.*, 1984; Potter, 2008). The present case describes the successful therapeutic management of cervico-vaginal prolapse with abortion of an immature fetus in a buffalo.

II. CASE HISTORY

A she buffalo aged about 6 years was presented in lateral recumbent position for 3 days, one leg of immature fetus and fleshy mass came out from vaginal opening and the animal was straining continuously. On clinical examination, the prolapsed mass was found to be lying on the ground, swollen, edematous, partially necrosed and stained with fecal materials, dust and debris and one hind leg of aborted fetus came out. The animal was anorectic, dull and depressed with normal body temperature. Based on clinical signs, the case was diagnosed as abortion with cervico-vaginal prolapsed (Fig. 1).

III. RESULT AND TREATMENT

In our case, prolapsed mass was thoroughly cleaned with chilled water containing potassium permanganate (1:1000) solution and removed dead fetus and placenta manually. The buffalo was given 7 ml lignocaine hydrochloride (2%) through the 1st inter coccygeal space to prevent straining and pelvic sensation in order to facilitate further vaginal manipulation. Prolapse mass were reposed with gentle handling and to avoid recurrence of this condition deep horizontal mattress technique was applied (Fig. 2).

Following successful reposition of prolapsed mass, supportive therapy such as DNS 500 ml and calcium borogluconate 450 ml intravenously, ethamsylate 10 mg/kg body weight intramuscularly for 1 day, enrofloxacin 5 mg/kg body weight intramascularly, tolfenamic acid 2 mg/kg body weight intramascularly, injection anistamin 10 ml intramascular and injection tribivet 10 ml intramascular for 5 days. Mineral mixture was recommended @ 50 g per day. A successful recovery of the animal was achieved without any complications (Fig. 3).

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IV. DISCUSSION

Among reproductive disorders, prolapse of genital organs occurs as a common gestational accident in ruminants, which requires immediate intervention before further complications. Various predisposing factors have been suggested in ruminats viz. 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, prolonged dystocia, fetal traction, fetal oversize, retained fetal membranes etc. (Roberts, 1971; Noakes *et al.*, 2001; Kumbhar *et al.*, 2009). There are several possible causes of abortion, including infectious agents (bacteria, viruses, protozoa, and fungi) or non-infectious factors such as physicals, genetics, chromosomes, nutritionals, chemicals, drugs, hormonal, and miscellaneous (Satish *et al.* 2019). In this case, the underlying cause was evaluated to the low nutritional status of the buffalo. It was observed that buffaloes with vaginal prolapse had a lower serum calcium, phosphorus and magnesium concentration (Ahmed *et al*., 2005; Akhtar *et al*., 2008). There was a lower level of serum copper and zinc in prolapsed buffaloes (Bhatti *et al*., 2006). A switch in hormones before parturition, as an increase in estrogen stimulates relaxin, can result in pelvic ligaments relaxing and cervical vertebrae weakening, resulting in prolapse (Wolfe, 2009). It has been shown that haemorrhage, shock, septic metritis, peritonitis, infertility, and death are the most common sequelae of uterine prolapse. Therefore, immediate and proper treatment of this condition not only saves the life of animal but also restores its fertility in the future.

Fig. 1 Cervico-vaginal prolapse with abortion in a buffalo

Fig. 2 Deep horizontal mattress technique

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Fig. 3 A successful recovery of the animal

V. CONCLUSION

The present case reported clinical management of cervico-vaginal prolapse in a buffalo. It can be concluded that low plane of nutrition is the pre disposing factor of prolapse in the present report. Therefore, it is important to formulate proper dietary ration and provision of mineral supplements to their dairy animals during gestation period.

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