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Successful management of post-partum uterine prolapse in a Lakhimi cow and subsequent conception

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Abstract

On clinical examination the uterus was found prolapsed and hanging from the vulva up to the level of the hock. After cleaning the prolapsed mass with a weak potassium permanganate solution (1:1000), was lubricated with 2 per cent methyl cellulose solution and replaced slowly under epidural anaesthesia (2% Lignocaine hydrochloride, Regain laboratories). Then the cow was infused with 450 ml calcium boro gluconate injection (Calborol, Novartis) intravenously, 15 ml Pheniramine maleate (Avinil, MSD) injection, 12 ml Tolfenamic acid (Maxxtol, Intas pharmaceuticals) injection and 1g Ceftiofur sodium (Tefrocef, MSD) injection intramuscularly (for 5 occasions). The cow came to heat within four months of treatment and was conceived on Artificial Insemination.

Keywords: Lakhimi Cow, uterine prolapse, therapeutic management, artificial insemination

1. Introduction

Lakhimi cow of Assam are distributed in the entire state and reared for milk and draught purpose by local people. Prolapse or eversion of uterus is observed most commonly in cows and it occurs most often after parturition. The prolapse may occurring immediately after parturition and occasionally upto several hours afterwards^[1]. It is an emergency condition that needs prompt and immediate attention^[2]. The present report recorded successful management of post-partum uterine prolapse in a Lakhimi cow and its subsequent conception.

2. History

A Lakhimi cow of 5 years of age was presented to the Out Patient Unit of the Teaching Veterinary Clinical Complex of the College on 11th April, 2018 with the history of delivering a female calf and expelling the placenta normally after 5 hours of the expulsion of the foetus following which a red mass of tissues protruded out from the Vula (Fig 1).

3. Observations of the case

The cow was presented with symptoms of restlessness and anorectic with reduced feed and water intake, increased pulse and respiration rate along with frequent straining. The body temperature was recorded normal (101.40 F). The prolapsed mass soiled with dung, soil, injured, lacerations, swollen, necrosis and reddening were observed. The prolapsed mass was found hanging from the vulva up to the level of hock with distinct enlargement and oedematous condition (Fig. 2).

4. Diagnosis

Based on the history, clinical and gynaecological examination of the prolapsed mass it was diagnosed as post-partum uterine prolapse.

5. Treatment and Management

Epidural anaesthesia was achieved by injecting Lignocaine hydrochloride 2% @ 5 ml at sacrococcygeal space to desensitize perineal region. The urinary bladder was evacuated using catheter and also lifting the prolapsed mass prior to further treatment. Ice pack was applied on the prolapsed part to reduce the inflammation. The necrosed tissue debris and dung were removed from everted uterine prolapsed mass and prolapsed mass was cleaned thoroughly with weak potassium permanganate solution (1:1000 dilution) and placenta was removed using

finger tips from maternal caruncles. The prolapsed mass was well lubricated with 2% carboxy methyl cellulose solution and was replaced to its normal anatomical position with gently pushing using palm of the both hands (Fig 3). Proper replacement was ensured by introducing the hand through the cervix. The vulvar lips were sutured with Horizontal mattress suture were taken at to overcome further complication. After complete reposition of the prolapsed mass animal was treated with with inj. 5% Dextrose normal saline @ 1000 ml and inj. Calcium borogluconate (Calborol, Novartis) @ 450 ml intravenously, inj. Pheniramine maleate (Avilin, MSD) @ 15 ml intra muscularly, inj. Tolfenamic acid (Maxxtol, Intas Pharmaceuticals) @ 12 ml intra muscularly and Ceftiofur sodium (Tefrocef, MSD) @ 1g intramuscularly. Ceftiofur sodium was given for five occasions once daily to prevent further bacterial infection. inj. Pheniramine maleate (Avilin, MSD) @ 15 ml intra muscularly, inj. Tolfenamic acid (Maxxtol, Intas pharmaceuticals) @ 12 ml intra muscularly was carried out as supportive treatment for 4 consecutive days to reduce histamine release and inflammation. The horizontal suture on vulvar lips was removed on the 5th day.

6. Results and Discussion

The animal regains its complete normalcy after this treatment without any complications (Fig.3). The animal showed oestrus after 120 days post treatment *i.e.*, on 9th August, 2018 and then inseminated and was confirmed as pregnant on 11th October, 2018 by per rectal examination.

Post partum complications greatly affect reproductive efficiency in cows. The line of treatment used in the present case was found very effective in dealing with a complicated case of complete prolapse of uterus. This success might be attributed to the quick rational approach undertaken in the present case in addressing all possible causes affecting uterine health, muscular tone and bacteriological status of the uterus. Tyagi and Singh [3] in the year 2001 also recorded post-operative fertility rate of 40-60% if prompt treatment is initiated which is in accordance with our study.

Epidural anaesthesia was used to desensitize the tail, anus, perineum, vulva and vagina by blocking the sacral and coccygeal nerves (Ramsingh *et al.*, 2013) [4]. Similarly, epidural anaesthesia was used in the present study to desensitize the perineal region.

Hypocalcaemia is a common cause of uterine prolapse, which lead to loss of myometrial tone and uterine prolapse subsequently [5]. Fubini and Ducharme, 2006 [6] also stated that most animals with uterine prolapse were hypocalcaemic, where signs of hypocalcaemia were noticed and such animals should therefore, be treated with calcium borogluconate. Similar finding was also reported by Kumbhar *et al.*, 2009 [7]. In this case, no relapse was noticed as well as the cow came to normalcy in respect of all clinico-gynaecological parameters after Calcium borogluconate therapy.

Ceftiofur sodium was given in the present case to prevent the secondary bacterial infection. Kumar and Yasotha in the year 2015 [8] also used similar therapy in their study.



Fig 1: Prolapsed mass of uterus protruded out from the vulva



Fig 2: Prolapsed uterus hanging upto the level of the hock



Fig 3: The cow after its recovery

7. Conclusion

Manual replacement of prolapse of uterus is a successful reproductive managemental technique with other supportive therapy in a cow. Some serious conditions *viz.*, fibrosis, edema, necrosis, septicemia may appear if the treatment is delayed. Hence early diagnosis and correction is required for improvement of the condition which will save the cow from critical condition.

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