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Management of postpartum uterine prolapse in a primiparous goat: Case report

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Abstract

A one and half year-old nondescript primiparous goat was presented with a case history of protrusion of mass through the vulva after two hours of kidding. On clinical examination, animal was apparently healthy and showed hypothermic. The prolapsed uterus was oedematous, soiled with faeces, dirt and blood clots. The everted uterus was carefully assessed and gross debris gently removed and disinfected with dilute Potassium permanganate solution. Epidural anaesthesia was achieved using 2 ml of 2% lignocaine hydrochloride injection administered at the intercoccygeal joint and modified Buhner's suture was applied. Animal had an uneventful recovery upon 8 days of the treatment.

Keywords: Buhner's suture, epidural anaesthesia, lignocaine, prolapse, uterus

Introduction

Postpartum uterine prolapse occurs in all large animal species, but most common in the cow and ewe, less common in the doe goat and rare in the mare. It is simply an eversion of the uterus which turns inside out as it passes through the vagina. Prolapse of the uterus generally occurs immediately after or a few hours of parturition when the cervix is open and the uterus lacks tone ^[2]. Prolapse or eversion of uterus is also called 'casting of wethers' or 'casting of calf bed' and is a common complication of third stage of labour in cow, buffalo, doe and ewe ^[7, 8]. Prolapse that occur more than 24 hours post-partum is extremely rare and is complicated by partial closure of the cervix, making replacement difficult or even impossible ^[1]. Immediately after the prolapse of uterus the tissues appear almost normal, but within a few hours it becomes swollen and oedematous often hanging down below the animal's hock. The placenta may likely be retained during this period; some animals will develop hypovolaemic shock as a result of internal blood loss, laceration of the prolapsed organ or incarceration of abdominal viscera^[5]. The etiology of uterine prolapse is unknown, but many factors have been associated with prolapse this includes poor uterine tone, increased straining caused by pain, excessive traction at assisted parturition or by the weight of retained foetal membranes, increased intra-abdominal pressure including bloat and excessive estrogen content in feeds ^[2, 3]. Animals with uterine prolapse treated earliest recovers without complication while delay in treatment could result in death of animal in an hour or so from internal haemorrhage caused by the weight of the organ which tears the mesovarium. Success of treatment depends on the type of case, the duration of the case the degree of damage and contamination^[4].

The present case reports of post-partum complete uterine prolapse in a non-descript primiparous goat and its successful obstetrical and therapeutic management.

Case history and clinical examination

A one and half year-old non-descript primiparous goat was presented to Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Bidar, Karnataka. The case history revealed that animal had given birth to one healthy male kid two hours before, after that genitalia started protruding from the vulval lips and prolapse occurred. On clinical examination it is revealed that animal was apparently healthy and the prolapsed uterus was oedematous, soiled with faeces, dirt and blood clots and the case was diagnosed as post-partum complete uterine prolapse. Pulse and respiration were within the normal range but the animal was hypothermic (96.5 0 F) and alert but it was not taking food and water and was not passing urine.



Fig 1: Complete cervico-uterine prolapsed mass

Treatment

The animal was restrained and the epidural anaesthesia was developed at 1st inter coccygeal joint using 2 ml of 2% Lignocaine hydrochloride injection. All dirt and debris were removed and uterine mass was washed with normal saline and finally with weak potassium permanganate solution (1:1000) partially attached foetal membranes were gently detached without injury to caruncles. Then Cold gel packs were kept on the prolapsed mass to reduce size and excessive oedema. After 10-15 minutes the uterus was pushed inside very slowly and gradually starting with portions near vulval lips. By gentle manipulation and pressure, cotyledons were pushed into vagina, avoiding vulval lips turning inwards. Then by applying synchronous pressure and inward force, prolapsed mass was completely pushed inside the vulva and repositioned. Uterine pessaries using povidone iodine (Betadine pessaries) was placed inside the uterus and modified Buhner's suture was applied, it is nothing but the circumferential burial of suture material around the vestibule of reproductive tract. Antibiotics Ceftriaxone Tazobactum @ 10 mg/kg b.wt I/V (Intacef Tazo) and Meloxicam @ 0.2 mg/kg b.wt I/M (Zobid-M) were given intramuscularly for 5 days. Oral Calcium liquid (Mifex) drenching was recommended @ 50 ml daily for 10 days. On 8th day, purse string suture was removed and goat recovered completely without further complication.



Fig 2: Developing epidural anaesthesia



Fig 3: Modified Buhner's suture pattern

Discussion

Noakes et al., (2001)^[4] stated that the prolapse of the uterus normally occurs during the third stage of labour at a time when the fetus has been expelled and the fetal cotyledons have separated from the maternal caruncles. The goal in the treatment of uterine prolapse is repositioning of complete uterus followed by a method to keep it in the retained position. Careful removal of dirt, debris and blood clots with warm dilute antiseptic solution is usually successful causing only minor capillary bleeding. Vigorous attempts to remove superficial contamination should be avoided as they may prove counterproductive by increasing toxin uptake [6]. A caudal epidural anaesthesia is essential before replacement of a uterine prolapse as it decreases straining and desensitizes the perineum ^[2]. Parenteral as well as intrauterine antibiotic therapy were instituted to control and overcome with possible bacterial infection and to establish good uterine health for performance. Anti-inflammatory, future reproductive analgesics and antihistaminic were helpful to correct pain/ inflammation.

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