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## Clinical management of post - partum uterine eversion in a jersey cross bred cow under field condition: A case report

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### Abstract

A five year old pluriparous Jersey Cross Bred Cow was reported at Veterinary Polyclinic, Chengannur with the history of uterine mass hanging out from the vulva after normal calving. An epidural analgesia with 2% lignocaine hydrochloride was given. The uterine mass was replaced manually by reduction technique. The cow was administered with antibiotic and fluid therapy. The animal was recovered uneventfully.

**Keywords:** Jersey cross bred cow, post-partum, epidural analgesia, uterine eversion

### Introduction

Prolapse of the uterus generally occurs immediately after or a few hours of parturition when the cervix is open and the uterus lacks tone (Hanie, 2006) [2]. Uterine eversion is most common in the cow and ewe, less common in the doe and very rare in case of mare. Complete eversion of the gravid uterus which turns inside out as it passes through the vagina. It 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 (Noakes *et al.*, 2001) [6]. The etiology of uterine eversion is unknown, but many factors have been associated with eversion (Jackson, 1995 and Hanie, 2006) [4, 2]. These includes conditions such as poor uterine tone, increased straining caused by pain or discomfort after parturition, excessive traction at assisted parturition and the weight of retained fetal membranes. Success of treatment depends on the type of case, duration of the case, degree of damage and contamination.

### Case History and Observations

A five year old pluriparous cross bred jersey cow weighing around 300 kg was presented at Veterinary Polyclinic, Chengannur with the history of uterine mass hanging out from the vulva since five hours post calving. Clinical examination was carried out and rectal temperature (100.4 ° F), heart rate (99 beats/min) and respiratory rate (26 cycles/min) were recorded. The ocular mucous membrane was pale. On general examination, animal lied in lateral recumbency with highly oedematous fully everted uterus. Per-rectal examination revealed distended urinary bladder.



**Fig 1:** Recumbent animal with fully everted uterus

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## Treatment

After the diagnosis of the condition as total uterine eversion, initially the uterine mass was lifted to the level of vulva so that the cow can relieve its bladder. An epidural analgesic was given next using 7 ml of 2% lignocaine hydrochloride. New Zealand method of correction was adopted. The perineal region and the whole uterine mass was washed using 1:1000 potassium permanganate solution. Sugar crystals were sprinkled all over the uterine mass to relieve oedema and subsequently washed off. Coconut oil was applied over the mass as lubricant. The uterus was then gently repelled inside the pelvic cavity using fist taking care not to cause any tear or puncture on the uterus. The vulval opening was then closed using Buhner's suture. The animal was administered with inj. Calcium borogluconate (450 ml, slow i/v), inj. Oxytocin (25IU, i/v), inj. RL (500 ml, i/v) and inj. Enrofloxacin (5mg / Kg BW). The antibiotic and fluid therapy was continued for 2 more days. The Buhner's Suture was removed on the tenth day and the animal recovered uneventfully.



Fig 2: New Zealand method of positioning



Fig 3: After correction

## Discussion

Uterine eversions normally occur 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 (Noakes *et al.*, 2001) [6]. The exact etiology of uterine prolapse is still unclear, however hypocalcaemia (Roberts, 2004) [8], poor uterine tone, increased straining, conditions that increase the intra-abdominal pressure including tympany,

excessive estrogen content in the feed (Kumar and Yasotha, 2015) and forced traction of the foetus (Noakes *et al.*, 2001) [6]. Proper treatment of the condition is essential to prevent toxemia and death of the animal. The aim in the treatment of uterine eversion is the reduction of uterus followed by a method to keep it in a retained position. Once the uterus is in its normal position, oxytocin intramuscularly should be administered to increase uterine tone. Fubini and Ducharme (2006) also reported that most of the animals suffering with this condition are hypocalcaemic. So, calcium borogluconate was administered to prevent impending signs of hypocalcaemia. An injectable broad spectrum antibiotics once administered for three to five days after replacement of the uterus will prevent secondary bacterial infection (Hosie, 1993; and Plunkett, 2000). Animals with uterine eversion that were properly managed can conceive again without any complication.

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