Journal of Entomology and Zoology Studies

Available online at www.entomoljournal.com

Journal of Entomology and Zoology Studies

E-ISSN: 2320-7078
P-ISSN: 2349-6800
www.entomoljournal.com
JEZS 2019; 7(5): 238-240

Received: 14-07-2019
Accepted: 16-08-2019

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Management of uterine torsion with incomplete dilatation of cervix by cesarean sections through flank incision at field level in a crossbred jersey cow

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Abstract
A three years old jersey crossbred brought to the veterinary dispensary Avatti, department of animal husbandry vridhachalam division, Cuddalore district with history of having attained full term pregnancy and signs of labour for 12 hours. Diagnosis was done with per rectal and vaginal examination. Right side uterine torsion relieved and incomplete cervical dilatation was not responding with appropriate treatment. The left paralumbar fossa site was prepared for doing C section. Proper aseptic procedure was done on surgical site with hydrogen peroxide then scrubbed with povidone-iodine solution the surgical site was anesthetized by paravertebral nerve block at T13, L1-3 with infiltration of 2% lignocaine. Death male calf around 35 kg relieved from the incision site. Continuous cushing suture pattern, followed by continuous Lembert suture pattern was done to close the uterine wall. The animal was treated with proper treatment protocol. Skin sutures were removed at 15 days after surgery.

Keywords: Cervix, cesarean, flank incision, crossbred jersey cow

Introduction
Milk and animal rearing were closely knitted to the agrarian based Indian economy. Milk and its products are the major sources of animal protein for the rural masses. The continued emphasis and development of dairy sector of the country made it highest producer of milk in the world. Cattle play a major role in more than 70 percent of total milk production. In cattle farming obstetrics and gynecology part giving major economic loss to small scale farmer. In this uterine torsion and uterine prolapsed are associated with advanced pregnancy and parturition [1]. Post cervical uterine torsion is more common [2]. To overcome this uterine torsion per-vagina rotation of fetus, rolling of the dam as per Schaffer's method and the caesarean section [3]. Incomplete dilatation of cervix, abnormal pelvic bone conformation, abnormal posture, fetal deformity (e.g. schistosoma reflexus), atresia or hypoplasia of maternal vagina [4, 5]. In this present study we are discussing about management of uterine torsion and Cesarean Section at field level.

Materials and Methods
History and Clinical Examination
Three years old jersey crossbred brought to the veterinary dispensary Avatti, department of animal husbandry vridhachalam division, cuddalore district with history of having attained full term pregnancy and signs of labour for 12 hours, but without any progress in calving. Per-vaginal examination indicates clockwise spiral folds or twists in the vaginal wall. Per-rectal examination indicates that crossing of broad ligament to the right side and sinking beneath the uterus confirm that right side uterine torsion. The animal was cast on right lateral recumbent position on ground bedded with straw materials. Detorsion was done with simple rotation. After each roll, effectiveness of roll was judged by per-vaginal examination. The second roll was successful, leading to the disappearance of the vaginal spirals, the cervix not dilated and small amount of discharge oozed from vulva. Incomplete cervical dilatation was not responding with appropriate treatment. We are taken the decision to perform a cesarean section.

Surgical Treatment

The left paralumbar fossa site was prepared for doing C section. proper aseptic procedure was done on surgical site with hydrogen peroxide then scrubbed with povidone iodine solution the surgical site was anesthetized by paravertebral nerve block at T13, L1-3 with infiltration of 2% lignocaine after proper sedation with xylazine hydrochloride [5, 6, 7]. Surgical site was covered with sterile drapes and 35 cm vertical incision was made in lower part of the flank. Then 40 cm incision was done on greater curvature of uterus to relive fetus and placenta. Dead male calf around 35 kg relieved from the incision site and uterine fluid was removed manually. Uterus was flushed with metronidazole and saline solution 0.9% to relieve dehydration and control the infection. Continuous cushing suture pattern, followed by continuous Lembert suture pattern was done to close the uterine wall by using catgut 1.0. Then muscle layers also closed with simple continues by using catgut 1.0. Surgical area was dusted with strepto penicillin powder. Skin incision closed by horizontal matters suture pattern with silk. The animal was infused with 1000 ml 0.9 percent Normal Saline (NS), strepto penicillin (10g), Meloxicam (Melonex, 0.5 mg/Kg) and pheneramine maleate (10 ml), local antiseptic dressing was performed using povidone iodine daily for one week. Skin sutures were removed at 15 day after surgery.

Fig 1: Uterus wall closed with Cushing followed by Lembert suture pattern

Fig 2: Muscle layers closed with simple continuous suture pattern

Fig 3: Skin incision closed by horizontal matters suture pattern with silk

Fig 4: Granulation tissue noticed 10 days after surgery

Results and Discussion

Management of uterine torsion with incomplete dilatation of cervix by cesarean sections through flank incision at field level in a crossbred jersey cow is most important in saving economical aspect of small farmers. Male calf heavier than female calf cause the difficulty in calving [8, 9]. Young animal having more incidence of assisted births than in older cows [10]. Male calf having one day longer gestation length with 12.7% more assistance required in Simmental breed [11]. In our study cesarean section was performed at field level under paravertebral nerve block in standing position with help 2 percent lignocaine. Entire surgical procedure was done with aseptic procedure may improve health and reproduction performance of the animal at field level.

Conclusion

Prognosis of C-section is generally poor in field level. To overcome this proper aseptic procedure we should fallow. Postoperatively, the cow should be watched for septic metritis, dehydration and mastitis and may require treatment with antibiotics and anti-inflammatories. To avoid C-sections, the cow and bull being bred should be of similar size and cows should be monitored carefully when they are close to delivery.

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