

Cesarean section for management of delayed cases of uterine torsion in buffaloes (*Bubalus bubalis*)

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Abstract

Pleuriparous Graded Murrah buffaloes which were in last trimester of gestation were selected for the study. All the buffaloes in the study were presented with history of anorexia and signs of colic for the past 3-4 days. The findings of physical examination, per rectal examination and pervaginal examination of buffaloes aided in diagnosing the condition as right side post cervical uterine torsion. Modified Schaffers method was followed. Cesarean section was performed in all animals to relieve the fetus and also to correct the uterus. Animals recovered uneventfully and no postoperative complications were observed. This report could be posted as an example, to show the importance of Cesarean section in delayed cases of uterine torsion in buffaloes.

Key Words: Graded Murrah Buffalo; Uterine torsion; Cesarean section.

Introduction

The incidence of dystocia is more in cattle and buffaloes when compared to other domestic animals (Purohit *et al.*, 2001). The causes of dystocia can be classified into maternal and fetal causes. The incidence of maternal dystocia is higher in buffaloes (Roberts, 1986) however; few studies reported the higher incidence of fetal dystocia in buffaloes (Singla *et al.*, 1990). Uterine torsion could be defined as twisting or revolution of uterus along its long axis (Ghosh *et al.*, 2013). Uterine torsion may occur in pluriparous animals during first last stage or second first stage of labour or during the last month of gestational period (Roberts, 1986). The choice of treatment for this condition depends on the experience of the veterinarian, severity of the torsion and the condition of dam. Conservative methods like rolling of dam; per-vaginal fetal rotation etc. could be followed primarily if the condition of dam is good. In the present paper, successful management of delayed cases of uterine torsion by cesarean section was reported.

Case History and Clinical Observation

A total of nine (n=9), pluriparous Graded Murrah buffaloes with a mean age of 6.56 ± 0.60 years were presented to the Obstetrical unit of NTR College of Veterinary Science, Gannavaram, Andhra Pradesh, with the history of anorexia, signs of colic and scanty faeces for the past few days. The exact time of initiation of symptoms was not observed by the owners as all the animals are reared under extensive system. Treatment with the antibiotics and analgesics was said to have been given to the animals immediately after noticing the symptoms by the local practitioner, and showed no improvement in any of the animal under study.

Clinical examination of the animals disclosed the presence of sunken eyeballs, congested mucous membranes and hyperthermia. Per vaginal examination revealed, clockwise spiral folds in vagina with no palpable cervix; whereas, per rectal examination revealed, crossing over of broad ligaments i.e, ventral depression of right broad ligament and dorsal stretching of left broad ligament. Hematological parameters showed mild anemia (9.87 ± 0.41 gm %) and neutrophilia (65.44 ± 2.53 %). Serum biochemical parameters disclosed mild elevation of BUN (63.33 ± 7.85 mg/dl) and Creatinine levels (1.74 ± 0.11 mg/dl).

Based on findings of the clinical examination, pervaginal and per rectal examinations the condition in all the animals was diagnosed as complete, right sided, post cervical uterine torsion. Cesarean section was opted in six animals (n=6); whereas, in the remaining animals attempts for conservative treatment was performed based on owner's request.

Treatment & Discussion

The animals were stabilized with intravenous administration of normal saline at the dose rate of 10 ml/Kg body weight, Ringer lactate at the dose rate of 10 ml/kg body weight, metronidazole at the dose rate of 10mg/ Kg body weight; intramuscular injections of inj. Streptopenicillins at the dose rate of 10mg/ Kg bodyweight and Melonex at the dose rate of 0.2 mg/Kg body weight. Once the improvement in physiological status observed, three out of nine animals were casted and placed on the same side of torsion (fig 1). Rolling was performed in 3 buffaloes which failed to achieve de-torsion in all buffaloes. Immediately these animals were kept on right lateral recumbancy and prepared for cesarean section; whereas, the other six animals were directly subjected for caesarian section after stabilization.

After aseptic preparation of lower oblique left flank site, laparotomy was performed. The uterus was identified and brought to the laparotomy site. Uterus found to be cyanotic (fig-2) in all the cases. After complete packing of the space between the uterus and laparotomy wound hysterotomy was performed. Foul smelling gases along with blood tinged allantoic and amniotic fluids (fig-3) were seen immediately after hysterotomy in seven cases. The fetus was removed and the hysterotomy wound was closed as per standard procedure in all the animals. Uterine detorsion was performed through the laparotomy wound followed by peritoneal lavage with normal saline. The laparotomy wound was closed as per the standard procedure.

Intrauterine administration of nitrofurazone and urea bolus was done immediately after surgery through the vaginal route. All animals were given post operative therapy with antibiotics for five postoperative days and analgesics for three days. The skin sutures were removed on 12th postoperative day by which time complete healing of skin was noticed and the physiological status of the animals appeared normal. No postoperative complications were recorded.

In the present study, the uterine torsion mostly occurred during the last month of gestation in Graded Murrah buffaloes which was in accordance with the report of Roberts (1986) who also opined that, uterine torsion occurred during first or second stage of parturition. Several predisposing factors might be responsible for uterine torsion which includes: the attachment of broad ligament; less of smooth muscle fibers in mesometrium; confinement of



Fig-1:Modified schaffers method



Fig-2: Uterus found to be cyanotic



Fig 3: Blood tinged amniotic and allantoic fluid

animal without exercise, (Ahmad,2001); vigorous movement of the dam; insufficient fetal fluid (Arthur et al.,1989). In the present study, the major predisposing factor might be due to jerky movements at wallowing or grazing in uneven terrain.

Three uterine torsion affected buffaloes were stabilized prior to rolling as opined by Ghosh *et al.*, (2013) who stated that, stabilization of dam with intravenous fluids and corticosteroids was necessary before rolling. In the present study, cesarean section was opted in all the cases which included 3 buffaloes which failed to detort by modified schaffers method and 6 buffaloes with incidence of uterine torsion for more than 3 days. Nanda *et al.*, (1991) also opined that, non responsive cases by Schaffer's method could be treated as a failure for the procedure and warrants immediate surgical intervention. Ghosh *et al.*, (2013) observed that, most of the cases of uterine torsion does not warrant the surgical intervention and cesarean section was not the first choice of treatment on contrary Prabhakar et al., (1995) opined that delayed cases of uterine torsion should be directly subjected to cesarean section to prevent further stress to the dam.

In the present study, the modified Schaffers method was opted in three cases by considering the owners request but failed to achieve detorsion. From the present study it is concluded that cesarean with prompt postoperative care yielded good results in delayed cases of uterine torsion.

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