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Successful management of pre cervical uterine torsion in a buffalo

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Abstract

When it comes to bovine dystocia, uterine torsion is one of the most complicated cases. A crossbreed buffalo of 6-year-old in its 4th parity at a completed gestation was presented at Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur with a history of labor straining, restlessness, kicking at the belly region, anorexia in the last 2 days. However, there were no indications of progression of calving progress. On Per rectal and vaginal examination, it was revealed to be post-cervical right-side uterine torsion. Detorsion was not done using Schaffer's plank method may be due to a higher degree of torsion (>180°). As a surgical emergency, the Cesarean section was performed in an aseptic manner. Dead emphysematous fetus along with the placenta were removed manually. Fluid therapy, antibiotics, anti-inflammatory injections and intrauterine preparations were administered postoperatively for 5 days. The dam was recovered within 10 days uneventfully.

Keywords: Buffalo, dystocia, uterine torsion, schaffer's plank method, cesarean section

Introduction

The rotation of the gravid uterus along its longitudinal axis is called Uterine torsion (Purohit *et al.*, 2011) ^[10] which may further cause twisting of the birth canal. It is one of the most common causes of dystocia followed by uterine inertia and incomplete cervical dilatation, observed in the last month of gestation during the late first stage or early second stage of gestation. Uterine torsion is considered to be a more frequent maternal cause of dystocia in buffaloes than cattle which leads to the narrowing of the birth canal. Its incidence was 29.5% to 30.6% in buffaloes according to Purohit *et al.*, 2011 ^[10]. Choice of the treatment depends on the severity of the torsion, the condition of the dam and the skill of the veterinarian doctor. If the condition of the dam is good, correction methods like per-vaginal fetal rotation, rolling of the dam could be followed.

Case History and Clinical signs

A case of buffalo of 6 years old had previously calved thrice showing a history of labor straining, restlessness, kicking at the belly region, and anorexia since 3 days. But she didn't show any signs related to the progression of calving. She had a normal temperature with pink CMM, increased respiration, and pulse rate. On per rectal and vaginal examination, it was unable to palpate the fetus and the hand was rotated towards the right side. Vulva of the dam was twisted to the right side. Hence, it was diagnosed as post-cervical right-side uterine torsion.

Correction and Management

It was decided to relieve the torsion firstly by non-surgical management i.e. Schaffer's plank method. The principle of this method is to keep the fetus fixed by fixing the uterus with the plank and rotate the dam to the same degree and direction to which the uterus has rotated. Buffalo was restrained in right lateral recumbency. A wooden plank of length (1 m) and width (15 cm) was kept in an inclined manner on the abdomen of the animal, by this the fetus was immobilized. The animal was rotated to the right side as three people kept the pressure on the edge of the plank by standing on it.

The position of the uterus was checked after every rolling by PVE. We rolled the animal many times. However, detorsion of the uterus was not done may be due to more degree of torsion (>180°) or torsion for prolonged period.

As a surgical emergency, Cesarean section was performed aseptically. Laparotomy was performed at the lower oblique left flank (Purohit, 2011) [10]. The space between the uterus and laparotomy wound was packed and then incision was given. Foul-smelling gases with blood-tinged allantoic and amniotic fluids were expelled out. The dead emphysematous fetus was removed out manually. Uterine detorsion was performed through the laparotomy wound. Successively the muscle layers and the skin were closed routinely in an aseptic manner. Intrauterine administration of nitrofurazone and urea bolus was done. Post-operative therapy was done with Fluid therapy, Antibiotics, Anti-inflammatory, and Analgesic injections for one week and also advised Khurak powder (mineral mixture) – 30 g BID daily. The dam was recovered uneventfully within ten days. Skin sutures were removed after 2 weeks. Surgical incision was completely healed and physiological status of the animal was normal.



Fig 1: Case presentation



Fig 2: Schaffer's plank method (modified rolling method)



Fig 3: Schaffer's plank method (modified rolling method)

Cesarean section

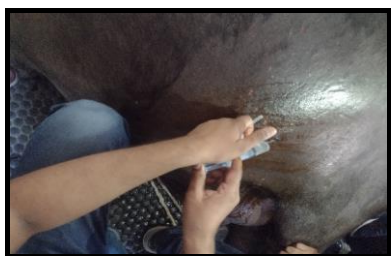


Fig 1: Local infiltration of Inj.2% lignocaine



Fig 2: Para oblique incision



Fig 3: Opening of uterus



Fig 4: Dead emphysematous fetus



Fig 5: Closing of the uterus by double row of Cushing's and Lembert's sutures

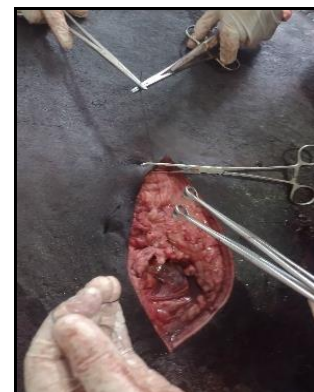


Fig 6: Closing of the peritoneum and muscles by continuous interlocking sutures



Fig 7: Skin was closed by simple interrupted sutures



Fig 8: Surgical incision line was sealed

Discussion

Uterine torsion is one of the most common condition leading to dystocia in farm animals especially in buffaloes. Significant uterine torsions are $>180^\circ$. More rolls were required as the torsion was increased and it was less successful to roll the buffalo and deliver a foetus. A Caesarean section must be done if the torsion is still present after three to five attempts. The maternal recovery rates should remain high unless severe toxemia or necrosis of the uterus has developed. It is challenging to do abdominal surgery or uterus detorsion when the fetus is deceased and emphysematous. The degree of rupture of fetal membrane and bloody uterine discharge was inversely correlated with the severity of torsion. If no severe toxemia or uterine necrosis has developed, the rates of maternal recovery should remain high in buffaloes.

Diagnosis and correction of uterine torsion provide a good prognosis for both. The viability of the fetus depends on the correction technique and the failure of the cervix to dilate fully. It also depends on duration rather than the severity of the torsion. Delay in diagnosis results in the delivery of a dead fetus by hypoxia due to placental separation even in the presence of unruptured membranes. The severity of torsion does not directly affect the survival of the fetus, but the amount of uterine vascularity is also a factor. We have observed the cyanotic uterus in this case.

Conclusion

Finally, it was concluded that uterine torsion has to be diagnosed and corrected early to save the life of the fetus and avoid further complications to the fertility of the dam.

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