



RESEARCH PAPER

Non-surgical management of right post cervical uterine torsion during terminal stages of parturition in a graded murrah buffalo

P. Mohan*, D. Jahangirbasha¹, G. J. Renukaradhya and Santosh P. Sarangamath²

Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Gadag (Karnataka) India

Abstract : A graded Murrah buffalo aged above six years and in its second lactation was brought to the department of Veterinary Gynaecology and Obstetrics, Veterinary College, Gadag. The history revealed that completion of gestation period, straining since three days. By per rectal examination right side torsion was diagnosed and relieved by applying Schaffer's method. During the correction of torsion after first rotation, gushing of fluids from the uterus was observed. On pervaginal examination carpal flexion was found. After correcting carpal flexion by applying traction a male dead fetus was removed.

Key Words : Buffalo, Dystocia, Uterine torsion, Schaffer's method

View Point Article : Mohan, P., Jahangirbasha, D., Renukaradhya, G. J. and Sarangamath, Santosh P. (2024). Non-surgical management of right post cervical uterine torsion during terminal stages of parturition in a graded murrah buffalo. *Internat. J. agric. Sci.*, **20** (1) : 1-4, DOI:10.15740/HAS/IJAS/20.1/1-4. Copyright@2024: Hind Agri-Horticultural Society.

Article History : Received : 03.07.2023; Accepted : 07.08.2023

INTRODUCTION

Uterine torsion is the rotation of the gravid uterus on its long axis (Rakuljic-Zelov, 2002) which leads to twisting of the broad ligaments along with birth canal causing dystocia. The condition was first described in 1766 by Boutrolle (Fleming, 1930). It is occasionally observed as a cause for dystocia in beef cows, bitches, queens, ewes, does and mares, but rarely in sows (Robert, 1986). Uterine torsion is usually observed in advanced pregnancy immediately before parturition (Roberts, 1986) and is a complication of early part of second stage of labor or latter part of first stage. The instability between

horns during pregnancy is the major cause for uterine torsion in bovines (Roberts, 1971).

It is one of the complicated causes of maternal dystocia in buffaloes culminating in death of both the fetus and the dam if not treated as emergency (Murty *et al.*, 1999, Sharma *et al.*, 1995; Prasad *et al.*, 2000; Manju *et al.*, 1985 and Mathijssen and Putker, 1989). In case of buffalo the incidence of uterine torsion is quite high. Many studies reported incidence of 43.44 % to 67% (Prasad *et al.*, 2000 and Purohit *et al.*, 2012) and even upto 83% (Srinivas *et al.*, 2007).

Pattabiraman *et al.* (1979) reported that 73.4% of uterine torsion cases were successfully relieved by rolling

*Author for correspondence:

¹Department of Veterinary Surgery and Radiology, Veterinary College, Gadag (Karnataka) India

²Department of Veterinary Medicine, Veterinary College, Gadag (Karnataka) India

and the maternal survivability rate was 97% as compared to 61.5% following caesarean section. Uterine torsion was 3 times more frequent when animals were confined in stables for long periods (Williams, 1943). Uterine torsion is a common cause accounts for maternal dystocia in buffaloes, and the direction is usually right side in more than 90 % of the cases (Roberts, 1986).

The cervix was incompletely dilated following 20 % to 50 % of successful detorsion cases (Marten, 1968; Pearson, 1971 and Frezer *et al.*, 1996).

Pascale Aubry *et al.* (2008) reported that uterine torsion was common with the calf in posterior presentations. Torsion may be corrected by several methods *viz.*, rolling the cow, Schaffer's method, use of detorsion rod and by caesarean section (Roberts, 1986 and Arthur *et al.*, 1989). For accurate determination of the direction of torsion rectal examination is necessary prior to making attempts for correction, as detortion in the wrong direction will worsen the problem (Noakes *et al.*, 2001).

The present report place on record that occurrence of post cervical uterine torsion at the time of parturition and its correction by Schaffer's method and relieving of a dead male fetus successfully.

MATERIAL AND METHODS

A six year old pregnant graded Murrah buffalo was referred to the Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Gadag, Karnataka state with the history of straining for the past 03 days. The general clinical examination revealed active buffalo with normal mobility, alertness (Fig.1). The physiological parameters like rectal temperature, pulse and respiratory

rates were normal. Per rectal examination of the animal indicated more than 180° right-sided uterine torsion. On per vaginal examination unable to palpate the cervix and the birth canal was twisted towards the right side. Hence, the case was diagnosed as maternal dystocia due to post-cervical right-sided uterine torsion.

RESULTS AND DISCUSSION

Uterine torsion is a common cause accounts for maternal dystocia in buffaloes, and the direction is usually right side in more than 90% of the cases (Roberts, 1986) which is similar to our case. Predisposing factors includes relatively long uterine ligaments, the low number of smooth muscle cells in the broad ligament, constant confinement, and hilly terrain (Ahmad, 2001). Uterine torsion might occasionally be diagnosed between 5th and 8th months of gestation (Roberts, 1986 and Ruegg, 1988).

The buffalo was casted on the same side of torsion and a wooden plank of 9 to 12 feet long and 8-12 inches wide was applied on the left flank after applying sufficient liquid paraffin on the flank area of the animal to avoid friction with wooden plank (Fig.2), rotation was performed on the same side of torsion (Fig.3), After each rotation pervaginal examination was done to observe cervical dilatation.

Prabhakar *et al.* (1994) reported higher survival rate in post cervical (87%) than pre cervical (54.5%) uterine torsion cases which is similar to our case and successfully treated by schaffers method of correction. After first rotation cervix got relaxed resulting in gushing of uterine fluid (Fig.4) and one more rotation was applied which results in complete dilatation of cervix and on per vaginal examination palpated fetal extremities with unilateral



Fig. 1: Clinico gynaecological examination



Fig. 2: Placement of wooden plank on left paralumbar fossa

carpal flexion. The postural abnormalities were corrected by routine mutation operation and by securing forelimbs with snare and positioning the head the fetus was relieved with gentle traction (Fig. 5). Because Schaffer's method for rolling the cow with a plank (Arthur, 1996) seemed more successful than without a plank.

The uterine torsion was 3 times more in animals reared under stabled condition, Williams (1943). The



Fig. 3: Shaffer's method of rolling



Fig. 4: Gushing of uterine fluid after first rotation



Fig.5: Traction of foetus per vaginally

cervix was incompletely dilated following 20 % to 50 % of successful detorsions as reported by Marten (1968); Pearson (1971) and Frezer *et al.* (1996) which is not similar to our case where with single rotation cervix got dilated and uterine content started gushing outside and after second rotation fetus was relieved with correction of fetal postural abnormalities.

Pascale Aubry *et al.* (2008) reported that uterine torsion could be common with the calf in posterior presentation, however in our case the fetus was in anterior presentation. Uterine torsion is a common cause accounts for maternal dystocia in buffaloes, and the direction is usually right side in more than 90 % of the cases (Roberts, 1986) which is similar to our case.

The death of the fetus (Fig.6), in the present case might be attributed due to the delay in presentation of the animal to the clinics leading to fetal hypoxia due to separation of fetal membranes. The uterine torsion could be corrected by several methods *viz.*, rolling the cow, Schaffer's method, use of a detorsion rod, and by caesarean section (Roberts, 1986; Arthur *et al.*, 1989) in this case Schaffer's method was applied. The animal is rolled to the same side of torsion as persons kept pressure on the plank by standing on it.



Fig.6: Removed male dead foetus

Clinically the dam was treated before detorsion with Inj. Normal saline 2 litres intravenously, Inj. ANISTAMIN® INTAS pharmaceuticals, India, each ml containing Chlorpheniramine maleate-10mg, 20ml administered Intramuscularly, Inj. TRIBIVET® INTAS pharmaceuticals, India, each ml containing Inj. Vit-B1-50 mg, B6-50 mg and B12-500µg, administered 15 ml intravenously. After relieving of torsion and expulsion of the fetus Inj. FLOBAC-SA, INTAS pharmaceuticals, India, each ml containing long acting enrofloxacin 100mg, administered 20 ml intramuscularly, Inj. BIOXY® Arihant

Complex, Bhiwandi, Thane, Mumbai-421302, India, each 1 ml ampoule containing 5 IU oxytocin, 40 IU, Subcutaneously administered. After a week of follow up it was observed that the animal is yielding 6 litres of milk per day and doing well.

Conclusion :

It was concluded that uterine torsion is mostly of 180 degree, clock-wise and post-cervical and occurs mostly at term, can be effectively corrected by Schaffer's method.

REFERENCES

- Ahmad, N. (2001).** Reproduction in the buffalo, p. 789-799. In Noakes, D.E., T.J. Parkinson and G.C.W. England. (ed.) *Arthur's Veterinary Reproduction and Obstetrics*. W.B. Saunders Company, Philadelphia, U.S.A.
- Ahmed, M., Chaudhary, R.A. and Ham, I.H. (1980).** Torsion of uterus as a cause of dystocia in the buffalo. *Pak. Vet. J.*, 1:22-24.
- Arthur, G.H, Noakes, D.F. and Pearson, H. (1989).** *Maternal dystocia: Treatment*. Fetal dystocia: Aetiology and incidence. The caesarean operation. pp.195-198, 305-306,310. In: Arthur GH,ed. *veterinary reproduction and obstetrics (Theriogenology)*. Bailliere Tindall, Lonon, England.
- Arthur, G.H., Noakes, D.F., Pearson, H. and Parkinson, T.J. (1996).** Maternal dystocias: Treatment. In: Arthur GH, ed. *Veterinary Reproduction and Obstetrics*. 7th Ed. London: WB Saunders, pp. 205-210.
- Fleming, G. (1930).** *Fleming's Veterinary Obstetrics London*: Baillière, Tindall and Cox, pp. 235-250.
- Frazer, G.S., Perkins, N.R. and Constable, P.D. (1996).** Bovine uterine torsion - 164 hospital referral cases. *Theriogenology*, 46 : 739-758.
- Mathijsen, H.F. and Putker, P.H. (1989).** Postpartum torsion of the right uterus horn in a cow. *Tijdschr. Diergeneesk.*, 114 : 17-19.
- Manju, T.S., Verma, S.K, Gupta, R.C, Manadskhot, V.M, and Krishnaswamy, A. (1985).** Profiles of some plasma biochemical constituents associated with uterine torsion and following its correction by laparohysterotomy in buffaloes. *Indian J. Anim. Reprod.*, 6 : 57-61.
- Murty, K.K, Prasad, V. and Murty, P.R. (1999).** Clinical observations on uterine torsion in buffaloes. *Indian Vet. J.*, 76: 643 - 645.
- Noakes, D.E., Parkinson, T.J., England, G.C.W. and Arthur, G.H. (2001).** *Arthurs veterinary reproduction and obstetrics*, 8th Ed., W.B. Saunders Company Ltd., London. pp. 237-238.
- Pattabiraman, S.R, Singh J, Rathore S.S. and Dhabiana, OC. (1979).** Non-surgical method of correction of bovine uterine torsion - A clinical analysis. *Indian Vet. J.*, 56 : 424-428.
- Pascale, Aubry, Lorin, D., Warnick, Luc, Des Coteaux and Emile, Bouchard (2008).** A study of 55 field cases of uterine torsion in dairy cattle. *Can. Vet. J.*, 49 : 366-372.
- Pearson, H. (1971).** Uterine torsion in cattle: A review of 168 cases. *Vet. Rec.*, 89 : 597-603.
- Prabhakar, S., Singh, P., Nanda, A.S., Sharma, R.D. and Singh, P. (1994).** Clinico-obstetrical observations on uterine torsion in bovines. *Indian Vet. J.*, 71 : 822-824.
- Prasad, S., Rohit, K. and Maurya, S.N. (2000).** Efficacy of laparohysterotomy and rolling of dam to treat uterine torsion in buffaloes. *Indian Vet. J.*, 77: 784-786.
- Purohit, G.N., Kumar, P., Solanki, K., Shekher, C. and Yadav, S.P. (2012).** Perspectives of fetal dystocia in cattle and buffaloes. *Vet. Sci. Dev.*, 2 : 31-42.
- Rakuljic-Zelov, S. (2002).** Haematological and biochemical profile of cows affected with uterine torsion. *Slovenian Vet. Res.*, 39(1) : 1580-4003.
- Roberts, S.J. (1986).** Diseases and accidents during the gestation period. Diagnosis and treatment of the various types of dystocia. Injuries and diseases of the puerperal period. p. 230-359. In Roberts, S.J. *Veterinary Obstetrics and Genital Diseases (Theriogenology)*, 3rd Ed. Woodstock, England.
- Ruegg, P.L. (1988).** Uterine torsion of 720 degrees in a mid-gestation cow. *J. Am. Vet. Med. Assoc.*, 192(2): 207-208.
- Roberts, S.J. (1971).** *Veterinary obstetrics and genital diseases*. 2nd Ed. CBS Publishers and Distributors, New Delhi, pp. 186-189.
- Sharma, S.P, Agrawal, K.B.P. and Singh, D.P. (1995).** Torsion of gravid uterus and laparohysterotomy in bovine-A report on 72 clinical cases. *Indian Vet. J.*, 72: 1180-1182.
- Srinivas, M., Sreenu, M., Lakshmi Rani, N., Subramanyam Naidu, K. and Devi Prasad, V. (2007).** Studies on dystocia in graded murrh buffaloes : A retrospective study. *Buffalo Bulletin.*, 26 : 40-45.
- Williams, W. (1943).** *Veterinary obstetrics*. 4th Ed. Worcester, Massachusetts: Ethel Williams Plimpton, pp. 196-199.14. Robin GW.
- Morten, D.H. and Cox, J.E. (1968).** Bovine dystocia. A survey of 200 cases met with in general practice. *Vet. Rec.*, 83:530-537.

20th
Year

★★★★★ of Excellence ★★★★★