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Uterine torsion in a Bargur cow: A first case report

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Abstract

A four-years-old full-term pregnant Bargur cow was brought to the Veterinary Dispensary, Bargur, Erode, Tamil Nadu, with the history of frequent lying down and getting up, recurrent straining, anxiety and inappetence for the past 6 hours. There was sinking of the lumbosacral spine along with elevated tail head. On per vaginal examination, the clock wise (to the cow's right) post cervical uterine torsion was collaterally diagnosed along with the help of anamnesis. After stabilization of the animal, the uterine torsion was amended by Schaffer's Method and the foetus was relieved by simple traction.

Keywords: uterine torsion, Bargur cow, first case report

Introduction

Bargur cattle are well adapted to the agro-climatic conditions prevailing in their respective native tracts of Bargur hills, Erode, lenient to the tropical heat, relatively more resistant to tropical diseases^[1], which is considered as draught breed and they are light inbuilt and are developed mainly for carrying out agricultural operations in the uneven and hilly terrain^[2]. Their milk yield is comparatively less which is around 572±24 kg^[2]. Since its milk yield is very low, the chances of getting metabolic disorders are also near to the ground. In the same way, fascinatingly, the condition of uterine torsion is seen hardly ever in *Bos indicus* cattle in which the broad ligament attachment changes from a ventral to a dorsal position towards the tip of the horn offering greater stability^[3]. Bargur cattle also have the same anatomical broad ligament attachment and there weren't any reports of uterine torsion cases. A case report in this breed on successful management of uterine torsion due to rolling down along the slope is presented.

One of the most vital obstetrical circumstances in cattle is dystocia. Dystocia is well-defined as tardy or problematic calving, sometimes necessitating significant human assistance^[4, 5]. It has a considerable impact on production and future reproduction of dairy and beef cows^[6]. Dystocia, however, is a multifaceted delinquent and is generally classified into being of maternal or foetal origin^[7]. Amongst the maternal causes of dystocia in bovines, uterine torsion is regularly encountered^[8]. Uterine torsion is most commonly pragmatic in the bovine as one of the etiologies of dystocia^[9]. Uterine torsion is a rotation of the uterus about its longitudinal axis with or with-out twisting of the anterior vagina. The broad ligament supports the uterus dorsolaterally but attaches to the ventral lesser curvature^[10]. Uterine torsion may transpire in all species of animals. The statistics states that the incidence of uterine torsion was 14.58% in white cattle^[6]. Among all of these, this is the first case report of uterine torsion testified in Bargur cattle.

Clinical History and Observations

A four-years-old full-term pregnant Bargur cow was brought to the Veterinary Dispensary, Bargur, Erode, Tamil Nadu, with the history of frequent lying down and getting up, recurrent straining, agitation and inappetence for the past 6 hours. There was sinking of the lumbosacral spine along with elevated tail head. A detailed history revealed a traumatic history (the cow slipped down a slope and rolled twice after being chased by another cow while grazing) two days prior to presentation. Epidural injection of 3 ml of 2% lignocaine hydrochloride was administered. Per - vaginal examination revealed a strong twist ($\geq 180^\circ$) in the anterior vagina running towards the right side and which brings the confirmative diagnosis of post cervical clockwise (to the cow's right) uterine torsion.

Materials and Methods

Number of methods has been described for the rectification of uterine torsion. At this juncture, we followed Schaffer's method of rolling using a wooden plank of 10ft length, 8 inches width and thickness 1.5 inches dimension.

The animal was cast on right lateral recumbency (on the same side of torsion) with both the forelimbs and hind limbs tied distinctly. The wooden plank was placed in an oblique direction over the flank region without any bone involvements in order to fix the uterus externally. Then the animal was slowly rolled towards the same side of torsion (right). Pervaginal examination following every complete rotation was done. After two successful rotations, the dilated cervix with an intact amniotic sac could be palpated. After manual rupturing of the amniotic sac a live heifer calf anterior longitudinal presentation (P1), dorso-sacral position (P2) with extended forelimbs (P3) was relieved by gentle traction. Nitrofurazone and urea pessary was placed inside the uterus to avert infection. This was followed by inj. Calcium borogluconate 500ml (I/v) and inj. Oxytocin 20 I.U diluted in inj. 5% DNS 500ml (I/v) to hasten involution and to prevent uterine prolapse. Intramuscular injection of Enrofloxacin, Meloxicam and Chlorpheniramine maleate was administered followed by oral enrofloxacin for 7 days postpartum.

Results and Discussions

After successful correction of torsion, a live heifer calf was delivered by gentle traction. The foetal membrane was shed after 3 hours of successful relief.

The degree of uterine torsion is chiefly assessed by the status of cervix approachability. As the degree of uterine torsion exceeds, the cervical accessibility also diminishes accordingly [11]. Uterine torsion has been classically categorized into mild, moderate, and severe degree [12], and most commonly encountered uterine torsion falls into moderate degree [13]. Vaginal examination is primarily of use in the diagnosis of post-cervical uterine torsion by palpating the stenosed anterior vagina [14], though the rectal examination is considered as a gold standard in the diagnosis of pre-cervical uterine torsion as broad ligament can be felt as a tight band running towards the opposite direction to that of uterine torsion [15].

Several methods can be used to correct uterine torsion which includes manual correction per vaginam, rolling of the dam, by using the DeMott detorsion rod, Schaffer's method of rolling and surgical correction. The choice depends on the degree of torsion, the stage at which the torsion is detected, and the condition of foetus, uterus and the dam [9]. Rolling the cow has been reported to be successful in 34% to 100% of cases [3, 16]. Schaffer's method for rolling the cow with a plank seemed more successful than without a plank.

Conclusion

Bargur cattle are maintained in large numbers in and around Bargur village of Erode district and the enclosures are usually open type 'pattys'. The possibility of trauma is almost unavoidable usually for the animal that is taken for grazing during day time for a distance of about 6-8 km. They are semi-wild and hardy to handle [17]. To avoid complications during pregnancy, the owner plays a great role in keeping them healthy and safe. The owner should not allow the animal for grazing for long distances in the last trimester. By taking good care, traumatic experiences can be avoided and farmers can be benefited economically. A moral network of veterinary expertise and the timely reporting to the primary veterinary

care centre by the owner aided the cow with complete recovery.

Pattys* = Terminology that used for housing enclosures of Bargur cattle by the people in and around Bargur village, Erode district.



Fig 1: Schaffer's method of rolling

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