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Laparo-hysterotomy for Management of Uterine Torsion in a Jafarabadi buffalo

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Abstract

A pluriparous jafarabadi buffalo in her fourth lactation was presented with history of constant abdominal straining and full term gestation without any progression in foetal delivery. On the basis of clinical and physical examination, it was diagnosed as left sided uterine torsion and treated by laparo-hysterotomy.

Keywords: Caesarean; schaffer's method; uterine torsion

Introduction

Caesarean section in buffalo is an emergency operative procedure being performed principally for uncorrectable uterine torsion and for delivery of foetal monsters. Amongst all domestic animals, cattle and buffalo are considered as species with highest incidence of dystocia requiring surgical manoeuvre. Amongst them, uterine torsion is a routine obstetrical condition which is a complication of either late first stage or early second stage labour. It is probably due to instability of bovine uterus which results from greater curvature of organ being dorsal and uterus being disposed cranially to its sub-ilial suspension by the broad ligaments (Roberts and Hillman, 1973). Although the uterus rotates about its longitudinal axis, involving uterine body, cervix and cranial part of vagina the actual twist in majority of cases involves cranial vagina, but rarely it may affect the posterior part of uterus with minimal distortion of vaginal walls, which prevents foetal delivery. The most constant feature of uterine torsion is its association with parturition. The rolling of dam is the most popular method of correction (Singh and Nanda, 1996; Noakes *et al.,* 2009). Obstetrical intervention is usually required in uterine torsion as it involves twisting of birth canal preventing normal delivery of foetus (Vermunt, 2008). However, in early diagnosed case of irreducible uterine torsion, it is advisable to go for Laparohysterotomy to extend the life of both the foetus and dam.

History and Clinical Observations

A seven years old pluriparous Jafarabadi buffalo in her fourth lactation with full term gestation was presented with complaints of intermittent abdominal straining since last ten hours with no progression in foetal delivery. The case was earlier treated symptoma-tically but fail to deliver foetus. Physical examination revealed signs of dullness, depression, arching back, horse stance posture, abdominal pain with rectal temperature of 103.4°F. Conjunctiva was congested and hyperaemic. Per rectal examination revealed post-cervical left side uterine torsion. Per vaginal examination revealed left twisted vaginal folds confirming uterine torsion to extent of more than 180 degree.

Treatment

On the basis of symptoms and per vaginal and per rectal examinations, the case was diagnosed as dystocia due to left side uterine torsion. Hence, it was decided to initiate treatment with an aim to detort it using modified Schaffer's method. Buffalo was casted on left side tying front and rear leg separately and a 2.5 m long wooden plank was applied on upper right flank to fix uterus and foetus, keeping an assistant on the plank while turning the buffalo. The rolling of animal was carried out on left side while keeping the hand into the vagina. With each rolling per vaginal examination was carried out to check the degree of detorsion (Fig. 1). Failing to detort the torsion upon three rolling, it was decided to go for C-section/ laparo-hysterotomy.

Surgical site was aseptically prepared after shaving the site using surgical scrub (7.5% Povidone iodine) approaching left flank. Local anaesthesia was achieved by infiltration of 90 ml of 2% Lidocaine in inverted 'L' manner. To prevent tenesmus and violent movement, posterior epidural anaesthesia using 10 ml of Lignocaine was also given. A vertical oblique incision of 20 cm was put to incise the skin. Further, abdominal muscles were incised ligating all bleeding vessels, while peritoneum was incised using

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Fig. 1: Rolling of dam

Fig. 2: Buffalo after recovery

scissors. Uterus was brought to the operative site by holding it through the foetal legs. Uterus was exteriorised avoiding cotyledons on greater curvature and a dead foetus in posterior presentation was removed. Foetal fluid and membranes were siphoned out. Uterus was flushed out using Normal saline and Metronidazole solution while placing furea boluses pessaries in uterus. Uterine incision was sutured by cushing followed by lambert method using truglyde absorbable suture material whereas skin incision was sutured by horizontal mattress sutures using non-absorbable silk material. Uterus was replaced back in abdominal cavity after through washing. Post-operatively, the buffalo was given 8 litres of DNS (IV), 10 ml Tribivet[a] (Vitamin B_1, B_6 and B_{12}, IV), 15 ml Meloxicam IM (Melonex[a]), 10 ml Pheniramine maleate (IM), while Amoxicillin and Clavulanic acid 4.5 g (IV) was given pre-operatively. The antibiotics and analgesics were given for successive four days and sutures were removed after continuous dressing for ten days. Animal made an uneventful recovery (Fig. 2).

Discussion

Caesarean section is a common obstetrical operation undertaken by field Veterinarians which markedly affects reproductive efficiency of animal. Heavy buffalo breed for instance Jafarabadi, is more prone to uterine torsion due to heavy foetal size as well as uneven land surfaces, where she is kept mainly in Saurashtra region which is in accordance with Jeengar *et al.* (2014) who also stated excessive foetal weight as predisposing factor for uterine torsion. Foetal death usually follows in uterine torsion due to stress on vascularity of foetal membrane and if condition is unrelieved, the placenta will separate and foetus will die as a cause of foetal hypoxia. The most cases of uterine torsion are of right side as rumen prevents the left side twisting of uterus, however left side uterine torsion has also been reported (Srinivas *et al.,* 2007; Phaneendra and Srilatha, 2015). Dam survival rates are high when the operation is performed within 24-36 hours of dystocia and there after prognosis is poor. Looking to the subsequent fertility and milk production, the caesarean operation is promptly indicated in early diagnosed irreducible torsion or if cervix fails to dilate even after dilatation attempts. The present case depicts the successful management of left side uterine torsion through caesarean section in a Jafarabadi buffalo.

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