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Uterine torsion in a non-descript cow with twins: A case report

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Abstract

A non-descript cow with non-progressive labor was examined and found to have uterine torsion that was corrected by rolling with Schaeffers method and two fetuses were delivered with an uneventful recovery.

Keywords: Cow, uterine torsion, twins

Introduction

Uterine torsion is a frequently observed cause of dystocia in dairy cattle with incidence varying from 1% in cows that are grazing and up to 9% in other cows (Frazer *et al.*, 1996)^[4]. A higher incidence was recorded in buffaloes (Purohit and Mehta, 2006; Purohit and Gaur, 2014)^[9, 11] compared to cows and among cattle a higher incidence was observed in pluriparous cows compared to heifers (Aubry *et al.*, 2008)^[11]. The uterus rotates on its own axis at a point cranial or caudal to the cervix (Purohit *et al.*, 2011)^[10]. The condition probably occurs due to uterine instability resulting in improper extension of the broad ligament attachments during advancing gestation (Lyons *et al.*, 2013)^[5]. Expulsion of the fetus is impossible unless the condition is corrected, and circulatory disturbances can result in death of both the fetus and cow if a prompt diagnosis is not made (Frazer *et al.*, 1996)^[4]. The condition can rarely occur during mid-gestation (Biggs and Osborne, 2003) although it is common near parturition (Frazer *et al.*, 1996)^[4]. Uterine torsion can occur in all breeds of cattle however, Brown Swiss and Holstein are considered to be at higher risks (Frazer *et al.*, 1996; Erteld *et al.*, 2012)^[4, 3]. Many case reports and case studies have found uterine torsion in cows with a single fetus (Pearson, 1971; Frazer *et al.*, 1996; Aubry *et al.*, 2008; Prakash *et al.*, 2014; Mane and Bhangre, 2015)^[7, 4, 1, 8, 6] however; uterine torsion in a cow with twins is rare (Wardrope and Boyes, 2002)^[14]. In this report we describe uterine torsion in a cow with twins.

Case history and Correction

A 7 yr old indigenous cow in her fourth parity was presented to our referral centre with a history of non-progressive labor since last 4 h. The animal was alert and the abdomen was enlarged. The clinical parameters were within normal range. Transrectal examination revealed nearly 180 degree uterine torsion towards the right side. The animal was administered appropriate therapy and was rolled using the Schaeffer method for detorsion of the uterus. The torsion was corrected and the fetus was delivered with slight manual help as the birth canal was sufficiently dilated. The animal started straining again 20 min after the delivery of the calf. The animal was examined again and a second fetus was found that was also delivered with manual assistance. Both fetuses were dead (Fig 1) but not decomposed. Fluid therapy and antibiotics were administered and the animal had an uneventful recovery.

Discussion

Uterine torsion is considered to occur in cattle due to the anatomical location of gravid uterus with little stabilizing structures (Erteld *et al.*, 2012)^[3] and decreased amniotic fluid in relation to the increasing size of the fetus and uterus during late gestation along with inordinate fetal movements (Schonfelder *et al.*, 2005)^[13] however the exact etiology continues to be poorly understood. Twins are rare in cattle with incidence ranging from 1-7% (Ryan and Boland, 1991)^[12]. The presence of twin fetuses with one in each uterine horn probably renders the uterus to be more stable and less prone to uterine torsion in cattle. Yet in the present case this probably did not occur. Strong fetal movements of one fetus possibly pulled both uterine horns to be twisted in one direction. Due to an early presentation the correction of uterine torsion

was easier. Previous studies have also mentioned that earlier the presentation of the case to referral center better are the chances of correction and fetal survival (Frazer *et al.*, 1996; Purohit and Mehta, 2006; Aubry *et al.*, 2008)^[4,9,1].



Fig 1: The cow with uterine torsion and the twin fetuses delivered subsequent to rolling.

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