Successful uterine detorsion with plank method and fetal delivery in an ewe

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Abstract
A pluriparous ewe with over-gestation showing symptoms of dystocia was presented at university veterinary hospital. Per vaginal examination revealed dry and edemated birth passage with ~180° right side post cervical uterine torsion. Following diagnosis the detorsion method using wooden plank was applied. Detorsion was achieved in single roll putting moderate pressure on plank and rolling of the dam. The present report depicts a case of uterine torsion in ewe and its successful detorsion with plank method followed by per vaginal delivery of malpostured fetus. Lubrication and physical dilation of the birth canal was done. Critical examination revealed upward and backward deviation of fetal head. This malposturing of fetus was corrected using repulsion and traction techniques followed by fetus delivery by mild traction on head and both fore limbs.

Keywords: Dystocia, detorsion, malposturing, uterine torsion

Introduction
Uterine torsion is defined as the rotation of the uterus on its long axis. It may be of varying degree i.e. from 45° to 180° or even more Roberts (2004) [8]. The condition is very common in cattle and buffalo but rarely encountered in ewes. Diagnosis usually done by palpating the constricted anterior vagina, which indicates the direction of the uterine rotation Arthur (2001) [1]. Parturition does not proceed despite severe and prolonged straining during first stage of labour in ewes affected with uterine torsion. This report describes a rare case of post cervical uterine torsion in ewe and its successful management using plank method and subsequently vaginal delivery of fetus following obstetrical maneuvering.

Case history and observation
A pluriparous ewe (2nd parity) with gestation period over by 2 days showing symptoms of dystocia was presented for treatment at university veterinary hospital. According to history, there were reduced feed and water intake along with abdominal straining by the animals since last two days. Ewe was anorectic, restlessness and showing tachypnea (18 per minute), tachycardia (90 per minute) with normal rectal temperature (101.4°F) and no evidence of water bag rupture or fetal fluids from the vagina. Per vaginal examination revealed dry and edematous birth passage with twisted vaginal lumen indicating ~180° right side post cervical uterine torsion (Fig. 1). On abdominal ballotment, fetal parts were palpable and no apparent fetal reflexes were present.

Treatment
The ewe was casted on the right side in lateral recumbency. The wooden plank (36 inch × 10 inch dimensions) was placed on the flank region. A moderate pressure was applied on plank using hands to fix the uterus (Fig 1 A and B). The ewe was gradually rolled in the direction of the torsion i.e. right side by maintaining moderate pressure on the plank. Following one rotation, per vaginal examination revealed successful detorsion and fetus limbs were approachable. Ewe was administered with Calcium Sandoz 10 ml (5ml slow i/v and 5ml s/c: Novartis, Mumbai, India), Pitocin (Pfizer, Mumbai, India) 25 IU slow i/v in 300 ml Normal saline (Nirlife, Mumbai, India). Thereafter, slight improvement in dilation of cervix was observed followed by appearance of water bag in birth canal. A dose of (8 mg/ml) Valthemate Bromide (Epidosin 5ml i/m: TTK healthcare, Chennai, India) was given to further relax the cervix. Lubrication and physical dilation of the birth canal was done with 2% sodium salt of carboxy methyl cellulose gel (Carmellose Na, WDT, Garbsen, Germany).
Following complete dilation of cervix, thorough examination revealed upward and backward deviation of head. The malposturing of the fetus was corrected using hand and fingers (repulsion and traction techniques). A mild traction on head and both fore limbs was applied to deliver the fetus. Grossly the fetus was normal but dead. Placenta expelled completely following delivery of dead fetus.

Post operatively, animal was administered with antibiotics, pitocin (10 IU I/M once, Pfizer, Mumbai, India), haemostat (Zakshot 5 ml, I/M, Carus Laborities, Delhi, India) and Meloxicam (5 ml, I/M, Intas, Delhi, India) for 3 days. Complete recovery of the animal was reported on follow-up of the case.

Discussion

Ewe with one lamb is more prone to uterine torsion as compared to more than single fetus. The uterine torsion can be relieved by rolling of the dam and laparotomy Roberts (2004) [8]. Among these, an oldest and simplest method to relief uterine torsion is rolling. Schaffer’s method and Sharma’s modified Schaffer’s method is being applied successfully in correction of uterine torsion in large ruminants. Naidu (2012) [5], Kumar et al. (2014) [6], Balasubramanian et al. (2013) [9] postulated that the most reliable method for correction of uterine torsion in small ruminants is modified Schaffer’s method which results in successfully detortion of uterine torsion and delivery of the fetus with proper postpartum care uneventful recovery in Doe. Present case was combination of uterine torsion complicated by malpostured fetus. However, malposturing was corrected through obstetrical maneuvering using ample lubrication with warm sodium Carboxymethyl cellulose gel for cervical dilatation. Prasad et al (2017) [7] concluded that Massage with Warm caroxymethyl cellulose gel (30-40 ml) for 5 minutes and repeated after every half an hour results in complete cervical dilation within 120 - 140 minutes in ewes. Honparke et al. (2009) [3] reported that using 15- 30 ml warm sodium carboxymethyl cellulose gel for cervical massage in detorted bovines and repeated after every 30- 40 minutes resulted in complete cervical dilation within 3 hours.

Fig 1: Per-vaginal diagnosis of post cervical uterine torsion (A) and detorsion with plank method (B)

References