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## Unusual incidence of uterine torsion in a mecheri ewe with bicornual twin pregnancy and its successful management

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### Abstract

A primiparous Mecheri sheep was presented with the history of full term pregnancy and abdominal straining since last 12 hours. Vaginal examination reveals twisting of vaginal fold towards right side (Right side post-cervical uterine torsion). Uterine torsion was successfully relieved by modified Schaffer's method. Also, two live male lambs were delivered pervaginally.

**Keywords:** Dystocia, mecheri ewe, primiparous, uterine torsion, twin pregnancy, modified schaffer's method

### Introduction

Mecheri sheep is medium sized haired breed and it mostly found in Salem and Namakkal districts of Tamil Nadu (Jagatheesan *et al.*, 2003) [6] and ewes were used for breeding 5 to 7 years after the puberty and twin pregnancy and dystocia were not reported in 100 flocks (Jagatheesan *et al.*, 2004) [7]. Uterine torsion is the one of the major obstetrical problem causing dystocia in bovines and it causes heavy economic losses to the farmers due to either death of dam or fetus (Karthick *et al.*, 2015) [2] and it has been reported in various livestock and non-livestock animal species and more commonly in bovines, very rarely in sow and occasionally reported in beef cows, bitch, queens, ewes, does and mare (Selvaraju and Karthick, 2020) [10]. Very low frequency of uterine torsion in small ruminants was due to sublumbar attachment of the broad ligament instead of subileal in cattle (Parkinson *et al.*, 2019) [4]. The present paper describes the successful management of uterine torsion in Mecheri sheep on its first parity with bicornual twin pregnancy.

### Case history and clinical observation

Primiparous Mecheri ewe on its first term was presented to the Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal, Tamil Nadu, at 10 am with history of full term pregnant and imminent parturition signs since early morning, but there was no progression in labour. On clinical examination the ewe appeared depressed, walked slowly with stiff and stilted gait. The rectal temperature (102.4°F), heart rate (96) and respiration rate (28) were within the normal range and colostrum appeared on milking. On vaginal examination cephalic portion of the vagina was twisted towards right side about 360° and it caused complete stenosis of vaginal passage. By abdominal palpation and ultra sonographic examinations fetal liveability was assessed. Based on vaginal examination the case was diagnosed as right side post- cervical uterine torsion.

### Treatment and Discussion

Bases on the history and Ultra sonographical examination it was decided to perform detorsion by modified Schaffer's method. The ewe was positioned on its right lateral recumbence (Fig.1) a small size wooden plank was kept on the left flank region (6 feet length, ½ feet width and 1 inch thickness), both forelimbs and hind limbs were grasped separately and by one man arm pressure the plank was fixed over the uterus (Fig.1). Then ewe was rolled towards right side. After the two successive rotations, examination of vaginal passage revealed absence of cephalic vaginal twist and the 3 fingers dilatation of cervix was noticed. After detorsion, the ewe was treated with Inj. dextrose 25% 200 ml (I/V), Inj. calcium Boro gluconate 150 ml (slow I/V).

After 20 minutes, the water bag expelled out (Fig. 2) and full hand cervical dilatation was noticed. By mutation operation one live male foetus from each horn was delivered indicating bicornual pregnancy (Fig. 3 & 4). Post-partum treatment includes Inj. Ceftriaxone 500 mg I/M, Inj. Chlorpheniramine maleate 1ml I/M, Inj. Oxytocin 10 IU I/M, and intra-uterine bolus (2 no.) were given. Placenta was expelled 3 hrs after treatment. Owner was advised to follow antibiotic treatment for next 3 days and there was an uneventful recovery.

The occurrence of uterine torsion in sheep and goat is rare (Selvaraju *et al.*, 2020) [9] and the dystocia due to uterine torsion in small ruminants reported as 1.8 - 2.0% and 4.4% in goat and sheep respectively and accident falling, rolling, lack of exercise, reduced foetal fluid, excessive foetal movements and frequent gradient walking these are the predisposing factors of uterine torsion (Chhavi *et al.*, 2021) [1]. Diagnosis of uterine torsion is difficult in small ruminants and it can be made in only in post cervical with typical folds in the vagina (Sharma *et al.*, 1992) [8]. The suitable methods for detorsion in small ruminant is rolling of dam and caesarean section (Velladurai *et al.*, 2016) [11]. Manokaran *et al.* (2012) [3] reported successful treatment of uterine torsion by laparohysterotomy followed by delivery of two live and two dead fetuses in a goat. However, in this present case two live male fetuses were delivered after performing successful detorsion by modified Schaffer's method. Twinning or bicornual pregnancy reduces the risk of uterine torsion in small ruminants (Roberts, 1971) [5] and perusal of literature revealed occurrence of uterine torsion with bicornual twin is very rare and hence it is repeated.



**Fig 1:** Detorsion by modified schaffers method



**Fig 2:** Protrusion of water bag after detorsion



**Fig 3:** Pervaginal delivery after detorsion



**Fig 4:** Two male fetuses

### Summary

This paper reports non-surgical approach of relieving the post cervical uterine torsion using modified Schaffer's method followed by delivery of two live male fetuses in an ewe with bicornual pregnancy.

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