



SURGICAL MANAGEMENT OF DYSTOCIA IN SHEEP- STUDY OF TWO CASES

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ABSTRACT

Two cases of dystocia in sheep due to cervical dilatation failure and their successful management through caesarean section is reported.

KEY WORDS: Caesarean Section, Dystocia, Ring womb, Sheep.

INTRODUCTION

Incomplete dilatation of cervix or ring womb is one of the commonest maternal causes of dystocia in goats and sheep (Noakes *et al.*, 2001) that is defined as failure of the cervix to dilate at parturition (Ghosh *et al.*, 1992). Incomplete dilatation of cervix is more common in ruminants due to its tough fibrous structure with substantial amounts of collagen. Hormonal imbalance or altered endocrinology has been suggested as a cause of the condition (Das *et al.*, 2008). The etiology behind incomplete dilatation of cervix could be insufficient release of hormones involved in softening of collagen (Wu *et al.*, 2004). This problem is considered to be a genetic defect. Dystocia in the ewe flocks have been described to be 3% (Jackson, 1995) however, the incidence of dystocia is considered higher in goats compared to ewes (Sharma *et al.*, 1999). The condition is more common in ewes (> 2 years old) carrying single fetus (Sharma *et al.*, 1999; Silva and Noakes, 1984). The main cause of the ring womb is still unknown. The present case report is aimed at depicting two cases of dystocia in non-descript ewes presented at Veterinary Clinical Complex, Hisar.

MATERIALS & METHODS

History and clinical findings

Two cases of dystocia in non-descript ewe were brought to Veterinary Clinical Complex with the history of straining since 5 days and 2 days in case 1 and case 2, respectively. Both the animals were in 4th parity. In both the cases, vaginal discharge was absent. External examination revealed less prominent signs of impending parturition with no vulvar edema and straining at the time of

presentation. Digital examination revealed insufficient dilation of cervix in both the cases. No evidence of rupture of water bag was reported by the owner. No fetal part was observed in the birth canal in case 1, however, in case 2, only one forelimb was present in the birth canal. Due to insufficient dilatation of cervix it was difficult to deliver the fetus by mutation. Both the ewes were alert but anorectic for last 2 days. Radiographic examination revealed presence of single fetus in the uterine lumen in both the cases. Due to completion of term in both the cases caesarean section was opted to deliver the fetus.

Operative procedure

Prior to surgical intervention animal were given inj. Dexamethasone 10mg and normal saline solution 500ml intravenously. The ewes were placed in right lateral recumbency and the left para-lumbar fossa area was shaved, disinfected and prepared for an aseptic caesarean section. The intended incision site was desensitized with a line infiltration of 2% lignocaine hydrochloride. The caesarean section was executed through a routine left ventro-lateral laparotomy. After incising the exteriorized uterus, dead fetuses (Fig.1 and Fig. 2) were delivered in both the cases and uterine horns were flushed with 200ml metronidazole. The uterus, peritoneum and the muscles were closed sequentially in continuous interlock suture patterns with chromic catgut-1 and consequently, the skin incision was closed using silk-1 in simple interrupted pattern as described by Vandeplassche (1981). For post-operative care animal was recommended streptopenicillin, multivitamin, meloxicam, metronidazole and chlorpheniramine maleate for subsequent 5 days. Both the ewes recovered uneventfully.



FIGURE 1: Dead fetus delivered through caesarian section from case 1



FIGURE 2: Dead fetus delivered through caesarian section from Case 2

RESULT & DISCUSSION

Obstruction of the cervix or failure of cervical dilation (often termed ring womb) is a major cause of ovine dystocia (Adams and Nairn, 1983; Brounts *et al.*, 2004). Cervical ripening is a multi-factorial process which is an outcome of hormonal regulation, inflammatory process and enzymatic breakdown of collagen. Whenever there are alterations in above mechanisms, animal may be affected with cervical dilatation failure (Gahalot *et al.*, 2017). The exact etiology of the condition is not known but a number of predisposing factors like hypocalcaemia, hypophosphatemia (Al-Sultan and Majeed, 1996), hormonal or mineral imbalances (Braun, 1997) have been reported since date. In literature the main indication for cesarean section in sheep is incomplete dilatation of the cervix that is also true for present cases (Brounts *et al.*, 2004). In these cases, survival of both the dam and newborn is significantly affected by the length of time laps between the commencement of labor and the time of presentation for caesarean section (Sharma *et al.*, 2014). Generally, success rate of caesarean section is higher if performed early when the fetus is alive or freshly dead (Hussain and

Zaid, 2010). Present case report also depicted survival of dams following caesarean section in freshly dead fetuses.

CONCLUSION

In small ruminants the digital manipulation of fetus is often cumbersome. Prolonged and delayed attempts for vaginal delivery affect the outcome of the case severely. Therefore, cases of dystocia due to incomplete dilatation of cervix in ewes can be managed successfully by surgical intervention without any post-operative complication.

ACKNOWLEDGMENT

The authors are very much thankful to the Head, Department of Veterinary Clinical Complex, College of Veterinary and Animal Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar-125004, India for providing facilities to carry out the surgery.

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