Abstract

A five years old full term pregnant non-descript ewe in its third parity with the history of full term gestation. Induction of parturition was done at field level 5 days ago with no advancement in delivery of fetus. Per-vaginal examination revealed one finger dilatation of cervix. The animal was examined radiographically for the presence of fetuses which revealed one fetal skeleton in utero. The final diagnosis was incomplete dilatation of cervix or ‘Ring womb’ condition. So, caesarean section was opted to deliver the fetus. The animal had uneventful recovery.

Keywords: Caesarean section, Ewe, Incomplete dilatation of cervix, Ring womb condition.

1. Introduction

Incomplete dilatation of cervix or ring womb is one of the commonest maternal causes of dystocia in goats and sheep (Noakes et al., 2009) that is defined as failure of the cervix to dilate at parturition (Ghosh et al., 1992). 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. Hormonal imbalance or altered endocrinology has been suggested as a cause of the condition (Das et al., 2008). 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). The main cause of the ring womb is still unknown.

2. Case History and Observations

A full term pregnant five years old non-descript ewe in its third parity was presented to the Veterinary Clinical Complex, LUVAS, Hisar with the history of full term gestation. Straining was observed 5 days ago by the owner and induction of parturition was done at field level 5 days ago with cloprostenol and dexamethasone but no advancement in delivery of fetus was observed. Per-vaginal examination revealed one finger dilated cervix. The animal was then examined radiographically which revealed presence of one fetal skeleton. Keeping the physical condition in mind, an emergency caesarean section was opted to deliver the fetus.

3. Treatment and Discussion

Prior to surgical intervention animal was stabilized with Inj. Dexamethasone 10mg and normal saline solution 500ml intravenously. The ewe was placed in right lateral recumbency and the left paramumber fossa area was shaved, disinfected and prepared for an aseptic caesarean section. The incision site was infused with a line infiltration of 2% lignocaine hydrochloride. The caesarean section was executed through a left ventro-vertical laparotomy (Fig 1). After incising the exteriorized uterus, one dead fetus (Fig 2) was delivered and uterine horns were flushed with normal saline 500ml followed by metronidazole (500mg/100ml) 200ml.
abdominal muscles were closed sequentially in continuous interlock suture patterns with Vicryl No. 1 and consequently, the skin incision was closed using silk-1 in simple interrupted pattern. For postoperative care animal was recommended Ceftriaxone, multivitamin, meloxicam and metronidazole for subsequent 5 days. Cervical dilatation is a key event for successful vaginal delivery of young ones that occur just before parturition. Failure of cervical dilatation due to alterations in cervical ripening mechanism or insufficient uterine contraction poses problems in delivery of fetus. Cervical ripening is a multi factorial process which is an outcome of hormonal regulation, inflammatory process and enzymatic breakdown of collagen (Dutt et al., 2018). Incomplete cervical dilatation is an important cause of maternal dystocia among farm animal species with maximum incidence in sheep and goat (Noakes et al., 2009). 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.

4. Conclusion

Incomplete dilatation of cervix in sheep (Ring womb) should be treated by caesarean section without unnecessary delay in order to save the life of ewe as the results with prostaglandin $F_2$ alpha and dexamethasone therapy are variable.

References


