

Surgical Management of Ring Womb in Ewe

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ABSTRACT

Failure of the cervix to dilate at the time of parturition remains one of the foremost reasons of dystocia in ewes. An adult ewe weighing ~25 kg was presented to the Teaching Veterinary Clinical Complex of College of Veterinary Science & Animal Husbandry, Anjora, Durg with the history of straining and restlessness. The external examination revealed vaginal discharge with slight edematous vulva. Per vaginal examination revealed slight edematous passage with partially open cervix. The animal was diagnosed using ultrasonography which reveals presence of one live fetus. Caesarean section was performed and one dead fetus was recovered. After proper post operative care ewe recovered uneventfully without any complications.

Keywords: Ewe, Ring womb and Caesarean Section

Dystocia in a ewe may urgently require veterinary support for the successful parturition (Abdullah *et al.* 2015). During pregnancy, cervix acts as a major protective physical barrier for the uterus. Dilation and softening of the cervix in the first stage of labor is a slow process referred to as Cervical priming (Jackson, 2004). Notably, the most common indications for caesarean section in the ewe are inability of the cervix to dilate (Roberts, 1986).

The term 'ringwomb' is used to describe the condition when the cervix fails to dilate completely during parturition (Noakes, 2002). The degree of incompleteness of dilatation varies from complete closure, to the state when there is just a small frill of cervical tissue present that considerably reduces the size of the birth canal (Praveen and Naidu, 2015). Previously, the incidences of obstruction of the birth canal due to inadequate cervical dilation has been reported to be 35% (Thomas, 1990), 25% (Bali, 1982) and 50% (Majeed *et al.* 1993) in sheep.

Case history and clinical observations

An apparently healthy four years old ewe was presented to the Teaching Veterinary Clinical Complex, College of Veterinary Science & Animal Husbandry, Anjora, Durg with the history of straining from last 48 hours and restlessness from the previous day. Vaginal discharge with slight edematous vulva was observed on external examination. Appetite of the animal was also normal. Physiological parameters like temperature, respiration, pulse were measured and were found within normal range. Presence of fetus in uterus was ascertained using ultrasonography. Upon complete physical examination the condition was found to be ringwomb. To correct it a caesarean section was performed and one dead fetus was recovered from the uterus.

TREATMENT AND DISCUSSION

Due to partially open cervix caesarean section was performed (Fig. 1). One dead

fetus was obtained from the uterus (Fig. 2). Thereafter, animal was treated with injection Streptopenicillin (@1ml/50 kg b.wt (Dicrysticin-S® Zydus Animal Health Ltd, Ahmadabad, India) intramuscularly, injection Meloxicam @ 0.5 mg/kg b.wt (Melonex® Intas Pharmaceuticals Ltd, Ahmadabad, India) intramuscularly, Chlorpheniramine maleate @ 0.5mg/kg (Anistamin® Intas Pharmaceuticals Ltd, Ahmadabad, India), 5 ml intramuscular Injection of Tribivet® (Intas Pharmaceuticals Ltd, Ahmadabad, India) for 5 consecutive days and Dextrose normal saline 500 ml Intravenously daily for 3 days. The case was fully recovered after 2 weeks without any complications.



Fig. 1: Exteriorization of uterus

Incomplete dilatation of cervix is one of the commonest maternal causes of dystocia in goats and sheep (Noakes *et al.* 2001). In ruminants, incomplete dilatation of cervix is frequent due to its tough fibrous structure with large amounts of collagen (Das *et al.* 2010). An imbalance in hormones has also been suggested as a cause of the condition (Das *et al.* 2008). Interestingly, it has been reported that there is no involvement of estrogen in the etiology of ring womb in sheep (Mennekes, 1983).



Fig. 2: Recovery of one dead fetus from the uterus

However, numerous researchers have documented a list of myriad predisposing factors such as hypocalcaemia and hypophosphataemia (AlSultan and Majeed, 1996), uterine inertia and breech presentation (Jackson, 1995) for ringwomb in sheep. In conclusion, incomplete dilation of birth canal in small ruminants has fairly common incidence which can be treated with fair to good prognosis by therapeutic management and if necessary surgical intervention.

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