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A rare case report of imperfect cervical dilatation with fetal maceration in non-descriptive doe

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Abstract

Fetal maceration may occur at any stage of gestation and has been observed in all species. Fetal maceration is mostly seen in case of cattle and is uncommon in the goat. A full term non-descriptive pluriparous goat dystocia was attended with a history of intermittent straining and unable to deliver kids. Kidding was induced, dead fetuses and macerated fetal bony parts were removed manually per-vaginum. Doe delivered three dead fetuses and a macerated fourth fetus after induction. A rare case of dystocia due to imperfect cervical dilatation and fetal maceration along with three dead fetuses in a non-descriptive doe and its delivery by manual traction is reported and described.

Keywords: Dystocia, maceration, per-vaginum, traction

Introduction

Fetal maceration is the disintegration of a fetus that can occur at any stage of gestation [1]. Maceration has been observed in almost all the species however; it is rare in case of goats. This condition commonly occurs in the event of fetal death after the formation of fetal bones (beyond 70 days in sheep and goat), regression of corpus luteum such animals failed to abort, even if the cervix is almost open probably due to uterine inertia [2]. Embryonic death and maceration are probably caused by variety of micro-organisms found in the uterus [3]. Microorganisms can enter into uterus via the dilated cervix. Sections of the fetal soft tissues were digested by the process of putrefaction accompanied by autolysis, leaving the fetal bone parts within the uterus. This paper presents successful management of imperfect cervical dilatation coupled with fetal maceration along with three dead foetus in non-descriptive doe.

Case history and clinical observations

A full term non-descriptive pluriparous doe at fourth parity with the history of dull, depressed, anorectic, exhibited intermittent straining and muco-purulent vaginal discharge from past two days. Dystocia was attended at the doorstep of a farmer house in Puthiyamputhur, Tuticorin, Tamil Nadu, India. On clinical examination, temperature, pulse rate and respiratory rate were within normal range. Abdominal palpation revealed gross distension of uterus with fetal mass. Vulval lips were edematous and congested. Vaginal examination revealed incomplete dilatation of cervix with one finger dilatation

Treatment

The parturition was induced with cloprostenol sodium 125µg I/M, dexamethasone 10mg I/M, valethamate bromide 20 mg and re-examined after 24 hrs. The goat was properly restrained in the lateral recumbency. Per vaginal examination revealed a completely dilated cervix surprisingly with more than one dead fetus and scattered fetal bones were felt inside the uterus indicated fetal maceration. The first fetus was in anterior longitudinal (P1), dorsosacral (P2), with bilateral shoulder flexion (P3). Postural abnormalities were corrected and the first fetus was delivered by manual traction. Second fetus in anterior longitudinal (P1), dorso-sacral (P2), with bilateral shoulder flexion (P3) and third fetus was in posterior longitudinal (P1), dorso-sacral (P2), with bilateral hip flexion (P3) as examination one after another. Postural abnormalities were corrected and the second, third fetuses was delivered by traction (Fig 1).

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Fig 1: Three dead fetus (one male and 2 female) born



Fig 2: Removed macerated fetal parts and bones with macerated fetus

However, fourth fetus was fully macerated and fetal bony parts were removed manually one by one (Fig 2). After ensuring that no large pieces of bones could be present, uterus was flushed with metronidazole intrauterine by sterilized AI sheath. The doe was treated with 5% dextrose normal saline (300 ml, I/V), intacef (500 mg, I/V), meloxicam (0.2mg/kg, I/M) and oxytocin (15 IU, I/V) post-operatively. The antibiotic therapy was continued for five days. The animal had an uneventful recovery.

Discussion

Fetal maceration is mostly seen in case of cattle and is uncommon in the goat. In this present case, doe expelled three fetus which was found to be dead along with a fully macerated fourth foetus. This was in accordance with the previous reported case of fetal maceration in a doe where three fetuses were delivered and the fourth fetus was macerated in non-descriptive goat [3]. Manual removal of fetal bones per vaginum should be attempted as reported previously [3,4]. Though, laparohysterotomy for removal of the macerated fetus is potentially dangerous, it must be considered as a last resort [5]. In Fetal maceration, non delivery of a dead fetus could be due to partially dilated cervix, uterine inertia, or the abnormal presentation of a fairly dry fetus which causes it to be retained in the uterus [6]. The rapid bacterial invasion of the fetus and its membranes through the dilated cervix leads to maceration.

Conclusion

This paper describes a rare case of imperfect cervical dilatation coupled with fetal maceration along with dead fetus and its successful management in the non-descriptive doe.

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