Short Communication

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Fetal Congenital Goiter in a Non-Descript Doe

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ABSTRACT

A nondescript doe, in its first pregnancy, presented with history of complete gestation, straining, and brownish-red discharge from the vagina for the past five days. Upon conducting a thorough gynecological examination, it was discovered that the doe had a fetus lodged in the birth canal in a breech presentation. Following proper lubrication of the birth canal, disposition of the fetus was corrected and gently extracted out. Two dead fetuses with congenital goiter were successfully delivered. The doe received appropriate treatment and made a smooth recovery without any complications.

Key words: Doe, Dystocia, Breech presentation, Congenital goiter.

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INTRODUCTION

Congenital goiter is a condition characterized by the enlargement of the fetal thyroid gland, which is non-inflammatory and non-malignant. It has been frequently observed in goats (Al-Ani *et al*., 1998). However, it is most commonly reported in goat kids residing in endemic regions (Hasan *et al*., 2013, Kumar *et al.,* 2014). The development of congenital goiter can be attributed to the consumption of iodine-deficient diets, such as Subabul (Sastry and Singh, 2008). This condition is characterized by fetal growth abnormalities, myxedema, prolonged gestation, and difficulties during birth (McDonald and Pineda, 1989). Thyroid enlargement occurs in cases of goiter as a compensatory response to meet the animal's demand for thyroid hormones. Congenital hypothyroidism commonly leads to late-term abortions, stillbirths, or early postnatal deaths. There have also been reports of dystocia resulting from goiter in a single goat fetus (Kujur *et al*., 2021). Dropsy of fetus, perosomus elumbis are reported as other causes of dystocia in goat (Reddy, 2007; Suthar *et al*., 2008). This case report presents the successful management of dystocia caused by breech presentation in goat fetus with congenital goiter in a nondescript doe.

CASE HISTORY AND OBSERVATIONS

A nondescript doe, 14 months old and in her first pregnancy, was brought to the Referral Veterinary Polyclinic at IVRI. The doe exhibited signs of complete gestation,

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straining, and a brownish-red vaginal discharge for a period of five days. Additionally, the doe appeared dull, depressed, and had a loss of appetite for the past four days. Intermittent abdominal straining was observed in the animal. The perineum of the doe was soiled with vaginal discharge. A thorough gynecological examination of the doe revealed the presence of a single fetus in the birth canal, positioned in a breech presentation.

TREATMENT AND DISCUSSION

The breech presentation of the fetus was manually adjusted to a posterior presentation with both hind limbs extended. With adequate lubrication of the birth canal, gentle traction was applied, resulting in the delivery of a dead female fetus with goiter. Pervaginal examination identified the presence of another fetus in the birth canal, which was also manually extracted. Upon gross examination, the skin of the dead kids appeared pale, thickened due to myxedema, and devoid of hair (Fig.1).

Fig. 1. Dead fetuses with hypertrophy of thyroid gland, alopecia and myxedema.

The doe underwent radiographic examination, which confirmed the absence of any intrauterine fetus. To address the condition, the doe received treatment including Enrofloxacin (Quintas® - Intas, India), administered intramuscularly (IM) at a dose rate of 5 mg/kg body weight. Additionally, meloxicam (Melonex® - Intas, India) was given at a rate of 0.2 mg/kg b. wt. IM. Multivitamin (Tribivet® - Intas, India) was administered as 2ml IM, and an intrauterine bolus (Cleanex® - Dosch, India) was given once daily for three days. Furthermore, the doe was provided with a uterine cleanser (Uterotone® - Cattle remedies, India), administered orally at a rate of 50 ml twice daily for five days. Following the treatment, the animal was discharged, and the owner was advised to continue the prescribed treatment for an additional four days. The follow-up of the case revealed a smooth and uncomplicated recovery of the doe.

Congenital hypothyroidism can be detected during pregnancy or shortly after birth (Mastrolia *et al.*, 2015). Levothyroxine sodium, a treatment commonly used in humans, has also been studied for its effectiveness in addressing T4 deficiency in young animals (Ozmen *et al.*, 2005). Lambs with goiter have shown successful results with oral administration of 20 mg potassium iodide, which is both cost-effective and safe (Constable *et al.*, 2017). Another preventive measure is the supplementation of Lugol's iodine in the drinking water during the final month of gestation, which can help prevent iodine deficiency and ensure a normal delivery (Reddy *et al.,* 2016).

CONCLUSIONS

In this case, the combination of fetal thyroid gland enlargement and breech presentation led to dystocia. However, the dystocia was successfully resolved through manual correction of the fetal presentation and the application of gentle traction. The presence of an enlarged thyroid gland with myxedema indicates the presence of congenital goiter. This condition can be attributed to dietary deficiencies or the consumption of goitrogenic feeds during the third trimester of pregnancy.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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