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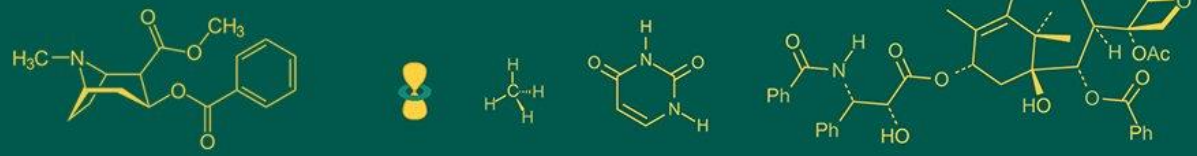

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Case report: Management of dystocia in a non-descript goat

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Abstract
A 3-year-old non-descript female goat, weighing 30 kg and in advanced pregnancy, presented with a history of straining since the previous night, indicative of dystocia. Clinical examination revealed only a two-finger cervical dilation. Initial treatment included intravenous administration of Dextrose Normal Saline (500 ml), Valethamate bromide (2 ml) for cervical dilation, Calcium Borogluconate (20 ml) and Dexamethasone (2 ml). After two hours, complete cervical dilation was achieved. Per vaginal examination revealed the presence of two foetuses, with the anterior foetus exhibiting flexion of both forelimbs and downward deviation of the head, complicating the delivery. Through manual correction of the foetal position (mutation) and careful traction, both foetuses were delivered but unfortunately were deceased. Post-delivery intrauterine treatment involved the administration of two boluses of Oriprim (intrauterine), followed by oral administration of Replenta powder (25 gm) twice daily for five days. The placenta was expelled the following day. The goat showed a successful recovery within five days post-treatment. This case highlights the importance of timely intervention and appropriate therapeutic management in resolving dystocia in small ruminants to ensure the health and recovery of the dam.

Keywords: Mutation, dystocia, intrauterine, non-descript, cervical dilation

Introduction
Dystocia is commonly encountered obstetric disorder in small ruminants, occurring when the first or second stage of part is markedly prolonged or the dam is unable to parturate (Noakes *et al.*, 2009) [6]. It can result from various maternal or foetal factors, such as incomplete cervical dilation, malpresentation or foetal oversize and sometime related to malnutrition (Jacobson *et al.*, 2020) [5]. If left unaddressed, dystocia can lead to severe complications, including maternal or foetal death (Daniela, 2017) [3]. Timely diagnosis and intervention are essential to resolving the condition and ensuring the recovery of the dam (Cowley, 2023) [2]. Here a 3-year-old doe was presented with straining since last night but unable to parturate, with prompt diagnosis, accurate approach and critical care the dam was relieved from the condition successfully.

Case History
A 3-year-old non-descript female goat, weighing 30 kg and in advanced pregnancy, was presented to the clinic with a history of continuous straining since the previous night. The owner reported no progression in parturition despite apparent efforts by the goat, raising concerns about potential dystocia.

Clinical Examination
A thorough clinical examination was performed. The goat's vital parameters, including pulse rate and body temperature, were within normal limits. The nature of vulvar discharge was evaluated and a portion of the foetus was observed protruding from the vulva. Per-vaginal examination revealed two figure cervical dilation, presence of two foetus and the anterior foetus was presented with abnormal foetal positioning as both the forelimb were flexed from

shoulder joint and downward deviation of head.

Diagnosis

The diagnosis of dystocia was based on the detailed history provided by the owner and clinical findings during the examination. Incomplete cervical dilation and foetal malpresentation (downward deviation of head and bilateral flexion of forelimbs from shoulder) were identified as the primary causes of dystocia in this case.

Treatment

Immediate therapeutic intervention was initiated to stabilize the goat and address the underlying condition. Supportive therapy included intravenous administration of 500 ml of Dextrose Normal Saline to combat dehydration and provide energy, along with 20 ml of Calcium Borogluconate to support uterine contractility. Dexamethasone (2 ml) was administered to reduce inflammation and facilitate parturition. To aid cervical relaxation and dilation, 2 ml of Valethamate bromide was given intramuscularly. Obstetric manipulation involved careful manual correction of the foetal malposition. Initially, retropulsion was performed to push the foetus back into the uterus. The mandible of the foetus was grasped to correct the downward deviation of the head, followed by correcting shoulder flexion to achieve complete extension of both forelimbs. Controlled traction was then applied to safely deliver the foetus. Post-delivery care included the administration of two oriprim bolus intrauterine followed by oral administration of Replenta powder (25 gm) twice daily for five days to promote the expulsion of placenta. Also, a course of five days antibiotics (inj. Ceftriaxone @ 10 mg/kg b.wt.) and analgesics to support recovery were given.

Result and Discussion

The intervention resulted in the successful delivery of the foetus, expulsion of foetal membrane on the following day and the goat showed significant improvement within 24 hours. The dam recovered fully within five days, resuming normal feeding and activity.

There are several factors that affect the reproductive performance of the goats which can decrease their numbers due to death of the foetus or dam. One of the most important factors which lead to great economic losses was the dystocia (Rehman *et al.*, 1999) [1]. Dystocia in goats is often associated with maternal or foetal factors, including incomplete cervical dilation, foetal malpresentation or uterine inertia. Early identification and timely intervention are crucial to preventing complications. In this case, the combination of supportive therapy, pharmacological agents and manual correction proved effective in resolving the condition. Valethamate bromide played a key role in cervical dilation, while the administration of Dextrose Normal Saline and Calcium Borogluconate helped stabilize the dam.

The importance of post-delivery care cannot be overstated, as it helps minimize the risk of infections and promotes faster recovery. Routine monitoring and proper management practices are vital to ensuring the health of small ruminants during parturition. However, prolonged dystocia in sheep and goats and unnecessary and prolonged attempts for vaginal delivery seriously affect the case outcome (Ismail, 2017) [4]. Also, positive outcomes in such cases depend on early diagnosis and the correct course of treatment. To avoid delays, these cases should be referred to higher centres rather than being managed locally (Vishvakarma *et al.*, 2024) [7].

Plate 1: Non-descript goat after assisted Parturition

Plate 2: Dead foetus delivered through mutation

Conclusion

This case highlights the importance of timely intervention and appropriate therapeutic management in resolving dystocia in small ruminants. The successful recovery of the goat underscores the need for vigilant monitoring, skilled obstetric care and the use of effective pharmacological agents. Regular training and awareness programs for farmers can further enhance the health and productivity of small ruminant herds.

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