Management of Postpartum Udder Edema in a Goat: A Case Report

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Abstract

Domestic goats are reared for meat and milk production in Himachal Pradesh and hence contributes directly or indirectly to farmers economy. However, low milk production due to various diseases in goats and lack of timely animal healthcare interventions leads to loss of farmers income and culling of animals. A goat after fresh kidding, aged one year and two months was presented at the Veterinary Clinical Complex, Palampur with complaint of swelling around udder. On physical and clinical examination all the body parameters were within normal range except for the edematous udder. Haematological examination revealed increased leukocyte count (28.70 x 10³/mm³). After performing in-depth clinical examination and laboratory diagnosis, the case was diagnosed as post-parturient udder edema. This case report deals with the successful therapeutic management of udder edema in a goat.

Keywords: Postpartum Udder Edema and Kidding and Mastitis

Introduction

Goats constitutes important part of the small ruminant livestock population in Himachal Pradesh. Livestock owners raise these domestic goats for meat and milk production and for their livelihood. However, numerous ailments in small ruminants, poor diagnostics and late treatment of disease conditions leads to low milk production and loss of farmer income. Among various diseases in goats, udder problems such as edema constitute one of the biggest causes for low milk production. Udder edema clinically looks like a disproportionate build-up of fluid in the interstitial spaces. According to Jones., *et al.* [1] this edema is associated to circulatory trouble with multi-factorial causes corresponding inheritance, reduced blood movement and dietary changes. This article deals with the successful therapeutic management of post parturient udder edema in a goat.

Case History and Diagnosis

A one year and two months old goat was brought at Veterinary Clinical Complex, Palampur, Himachal Pradesh with a history of normal kidding two days ago along with severe swelling of the teats and udder. Complete clinical examination of ailing goat showed normal body temperature (101.6°F), respiration rate (16 breaths per minute) and heart rate (78 beats per minute), was active and found clinically normal except for the udder. Severe painful swelling of udder and teats was noticed on physical examination, left sided teat was cold and hard to touch while right teat was hot and soft. On palpation, edematous area and inflammation presented pitting edema on compression.

Milk from each teat was normal in colour and consistency (California Mastitis Test was negative) with milk pH of 6.7. Haematological examination revealed a normal total erythrocyte count (20.50×10^6 /mm³) and haemoglobin levels (13.40 g/dl), however increase leuko-cyte count (28.70×10^3 /mm³) was noticed. Nothing abnormal has been detected on biochemical examination. After performing in-depth clinical examination and laboratory diagnosis, the case was diagnosed as post-parturient udder edema.

Treatment and Discussion

The owner was advised to milk the goat three times a day. Injection (Inj.) Enrofloxacin @ 5 mg/kg body weight intramuscular (i/m), Inj. Pheniramine Maleate 2 ml i/m, Inj. Meloxicam @ 0.5 mg/kg b. wt. i/m, Inj. Furosemide @ 3 mg/kg b. wt. along with Vitamin A, E and Mineral supplementation was given for 3 days. There was a steady decrease in the edematous inflammation and goat effectively recuperated within five days of treatment without disturbing milk production. This case report deals with the efficacious therapeutic management of post-parturient udder edema in a goat. Udder edema is a swelling of the udder, teats and sometimes the lower abdomen [2]. This condition is usually a birth related sickness characterized by amplified build-up of liquids in the intercellular tissue places, and extreme blood stream of mammary gland makes udder tissue additional susceptible to evolving restricted edema [3]. Treatment consisting of antibiotic, anti-inflammatory, diuretics along with balanced nutrient supplements consisting of Vitamins A, β-carotene and E helped in the successful management of this case.

Conclusion

As a conclusion based on this case report, imbalanced prepartum diet with improper nutrients and extreme salt content causes undue buildup of fluid in extracellular spaces of the udder and teats which further upsurges the harshness of udder edema. This condition could act as a threat factor for development of mastitis after kidding. Timely treatment and little salt comprising balanced pre-kidding diets having Vitamin E, vitamin A and β-carotene could stop development of post parturient udder edema in goats.

Bibliography

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