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Teat Injuries in Goats: Financial Losses for Farmers

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Introduction

Teat lacerations and teat fistulas therefore present a big bottleneck when it comes to economic returns for farmers. These conditions lead to monetary loss from the point of view of the reduced supply of milk, increased expenses, and possible negative consequences on the animal's future health status and productive performances. The cases of teat affection are very important for early intervention before the threat of developing further severe conditions such as mastitis, teat necrosis, or even the total loss of the affected quarter. Goats are a vital source of meat and milk-producing animals in livestock farming. However, they are easily affected by several operative illnesses that could lead to low yields and significant losses (Abu-Seida and Ahmed, 2007). Considering that ruminants' udder and teats are external body appendages, the teats are prone to injuries from traumas (Weaver *et al.*, 2005). Grazing animals are most often affected by teat laceration which is the most widespread surgical ailment and may result from barbed wires and farm implements. In goats, a higher incidence of teat lacerations is expected because of their droopy udder and large teats. Teat injuries could perhaps be a result of trauma, insect bites, effects of environmental factors, and milking paraphernalia particularly the milking machine (Sreenu *et al.*, 2014).

These injuries reduce the functionality of the teats (Roberts and Fishwick, 2010) and predispose the animals to teat fistulae, mastitis, gangrenous mastitis, and/or udder sloughing. Immediate healing of the lesions occurring on teats ought to be done since any delay results in the development of mastitis,

or even lead to necrosis of the teat (Singh *et al.,* 2003). Such complications may lead to early removal of affected animals and this always leads to loss of stock, revenue, often time, and lives. Any injury to the teats should be treated as soon as possible to avoid complexities such as infections. The management of teat injuries is decided based on the structures affected by the injury. The severity of teat injuries depends on antecedent factors such as considering the teat injury's length, location, shape, and the lesion's depth. Superficial teat injuries generally do not involve suturing, whereas deep injuries of the teat usually involve suturing.

Aetiopathogenesis:

1. Goat teat injuries are mainly caused by barbed fencing wires. The barbed fencing wires are the common wires found within the Indian territory mainly used for boundary sectioning. These injuries occur when the goats try to move across or over these wires; this is easily illustrated when a goat jumps over such cables.

2. Teat lacerations of partial thickness can be encountered when the kids start suckling. Even these abrasions hardly cause further complications but they have to be managed correctly with basic wound care techniques.

3. Lacerations result from teat injuries by sharp objects such as needles, wooden pieces, nails, farming tools, horns, and milking machines. These injuries may progress to teat damage and consequently, the formation of fistulas, especially when traumatized.

Teat lacerations can be classified based on some factors that include the time of exposure to the cut, the location of the cut, the shape and the size of the cut and lastly the depth of the cut. They may involve part of the layer down to the dermis or involve the entire skin layer. Partial thickness lacerations therefore relate to injuries that result in skin loss and also affect muscles and blood vessels but do not reach the teat cistern. Most of the time, such lacerations do not require surgery and they can be treated by medical management. In extensive partial-thickness lacerations, clinical judgment should be used and, in some circumstances, suturing may be performed depending on the degree of tissue damage. Nevertheless, it contributes to mentioning that teat infections may occur, and if left untreated or treated in the late stages, mastitis may occur. Teat fistula described as tracts that are developed from the teat canal commonly arise from injuries on purpose. The type of injury can be secondary to full-thickness teat lacerations which may invade the teat cistern or may be congenital in origin as reported by *Singh et al.,* (2012). Clean, contused, full-thickness lacerations that open into the teat cisterns are common in goats. These cuts become fistulas and from this opening, there is steady discharge of milk through the fistula. Surgery has to be done in these types of lacerations to suture and perform closure of the fistulous opening. If not acted out well milk becomes a favourable place for bacterial

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accumulation causing teat infections with potential clinical mastitis, necrosis, and sloughing off the quarter. Therefore, the identification of the teat injuries in the initial stage, as well as the provision of medical and surgical treatments becomes vital to avoid such consequences.

Treatment

Surgical treatment is necessary to repair teat lacerations that result in exposed underlying structures. Ideally, it is suggested that the surgical repair should be done within the first 12 hours of injury to give the best results (Singh *et al.*, 2012). In cases of laceration and trauma to the udder, local anaesthesia is effective in enhancing the surgical procedures to be performed. Ring block, inverted V block, teat cistern infusion, local anaesthetic ointment on the teat, perineal nerve block, and any combination of the above can produce adequate analgesia. Effective management of teat lacerations involves two key aspects: a liberal debridement of the laceration to remove any infected or necrotic tissue and the required knowledge of the blood supply to the teat. But in small-scaling goats or kids with small teats, one cannot always afford to go for the debridement process. Teat has 4 layers, thus we can mention mucosa, submucosa, muscle, and skin layers. In repairing a teat fistula, the primary objective is to tight seal that prevents milk leakage and maintains a steady flow through the teat cistern. This is done by closing the mucosa along with the submucosa and muscular layers using catgut or other forms of absorbable materials while the skin layer is closed using silk or polyamide. Different suture patterns are used when sewing up these fistulas; one of them is the usage of a double layer simple continuous suture using material PGA 3-0, a simple interrupted suture, using material Nylon 1-0.

Conclusion

Teat lacerations and the consequent teat fistulas are rather common in goats, particularly because of goat's long and droopy udder and elongated teats. In such circumstances, the patient should opt for an early surgery intervention. If the teat lacerations are not treated early, then complications such as the formation of fistulas, mastitis, necrosis of the teat, and the ultimate loss of the quarter may occur. All these conditions have a great economic effect on the farmers resulting in milk loss and additional expenses associated with treatment. Hence, early surgical therapy is necessary for the management of deep traumatic injuries to cut down on more losses.

References

1. Abu-Seida, A.M. and Ahmed, K.A. (2007). External neoplasms in goats: A clinicopathological study on five types. *Vet Med J*., 55: 33-44.

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Published 14/05/2025

2. Roberts, J. and Fishwick, J. (2010). Teat surgery in dairy cattle. *In Pract.* 32: 388-396.
3. Singh, P., Singh, J. and Sharma, P.D. (2003). Surgical conditions of udder and teats in buffaloes. *Intas polivet*, 4: 362-365.
4. Sreenu, M., Prakash, K.B., Sravanthi, P. and Sudhakar, G.K. (2014). Repair of teat laceration in a cow. *Vet. Clin. Sci.* 2(3): 52-54.
5. Weaver, D.A., Jean, G. and Steiner, A. (2005). Teat surgery. Bovine surgery and lameness. 2nd ed Blackwell Publishing Ltd, UK pp. 158-166.