International Journal of Veterinary Sciences and Animal Husbandry 2025; 10(11): 207-208

International Journal of Veterinary Sciences and Animal Husbandry

ISSN: 2456-2912
NAAS Rating (2025): 4.61
VET 2025; 10(11): 207-208

www.veterinarypaper.com
Received: 09-08-2025
Accepted: 11-09-2025

P Swetha
Postgraduate Scholar, Department of Veterinary Surgery and Radiology, Veterinary College and Research Institute, Namakkal, Tamil Nadu, India

S Kokila
Assistant Professor, Department of clinics, Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal, Tamil Nadu, India

S Kathirvel
Professor and Head, Department of Veterinary Surgery and Radiology, Veterinary College and Research Institute, Namakkal, Tamil Nadu, India

R Yogeswari
Associate Professor, Department of Veterinary pharmacology and Toxicology, Madras Veterinary College, Chennai, Tamil Nadu, India

A Kumaresan
Professor, Department of Veterinary Surgery and Radiology, Veterinary College and Research Institute, Namakkal, Tamil Nadu, India

S Dharmaceelan
Professor and Head, Department of Clinics, Veterinary College and Research Institute, Namakkal, Tamil Nadu, India

Corresponding Author:
S Kokila
Assistant Professor, Department of clinics, Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal, Tamil Nadu, India

Retrospective study on the incidence of traumatic teat injury in cattle (2024-2025)

P Swetha, S Kokila, S Kathirvel, R Yogeswari, A Kumaresan and S Dharmaceelan

DOI: https://www.doi.org/10.22271/veterinary.2025.v10.i11d.2726

Abstract
Udder and teat health care is becoming increasingly important for dairy farmers, as diseases affecting udder and teat ultimately reduce productivity and cause significant economic losses. Out of 2,265 bovine cases reported to the large animal surgical outpatient unit, VCRI, Namakkal 135 cattle (5.96%) had teat affections. Among 135 recorded cases, the affections included teat obstruction (62.22%), teat laceration (13.33%), teat fistula (2.96%), thelitis (12.60%), teat papilloma (4.44%), foreign body in the teat (2.22%), lactolith (0.74%) and supranumerary teat (1.48%). The study revealed highest incidence of traumatic teat injuries in crossbred Jersey aged between five to six years on 3rd calving by self infliction in early stage of lactation.

Keywords: Incidence, teat affection, teat laceration, milk

Introduction
The maintenance of optimal udder and teat health is crucial in modern dairy management, as pathological conditions affecting these structures adversely impact lactational performance and lead to significant economic losses in the dairy industry. The teat sphincter and teat canal form essential components of the mammary gland's innate defence system serving as primary physical and immunological barriers against microbial invasion (Rainard and Riollet, 2006) [11]. Structural or functional impairment of these barriers predisposes the gland to various pathological conditions. Furthermore, disruption of the teat canal's integrity facilitates bacterial invasion with milk providing a favorable medium for microbial proliferation and infection establishment (Stavropoulou and Bezirtzoglou, 2022) [9].

Materials and Methods
The incidence study was conducted on various teat affections at Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal, Tamil Nadu from October 2024 to September 2025. Details regarding age, breed, number of calving, stage of lactation and etiology of the injury were recorded.

Results and Discussion
A total of 2,265 bovine cases was presented to Large Animal Surgery Unit, VCC, VCRI, Namakkal during the study period. Among them, 135 animals (5.96%) were diagnosed with various teat affections. The incidence of various teat affections are as follows teat obstruction (62.22%) (n=84), teat laceration 17.03% (n= 18), teat fistula 2.96% (n=4), thelitis 12.60% (n=17), teat papilloma 4.44% (n= 6), foreign body in the teat 2.22% (n=3), lactolith 0.74% (n=1) and supranumerary teat 1.48% (n=2). Of the affected animals, cows and buffaloes accounted for 92% and 8%, respectively. This is in accordance to the study conducted in cattle by Premsairam *et al.*, (2020) [8] who reported that the incidence of teat injuries in milch cattle as stenosis (31.5%), laceration without perforation (22.2%), skin wound (21%), rupture or splitting (20%) and perforating injury (4.9%). Out of 135 animals, 22 traumatic teat injuries

will be taken for incidence study. Details regarding age, breed, number of calving, stage of lactation and etiology for injury were recorded.

Agewise incidence revealed 36.36% (n=8) of the animals were aged between five and six years, 18.18% (n=4) between six and seven years, 13.63% (n=3) between three and four years, four and five years, 9.09% (n=2) between seven and eight years, two and three years. The highest incidence between 5-6 years may be due to peak period of lactational and productive activity. During this stage, animals are generally in full milk production resulting in larger and more pendulous udders with increased exposure predisposing them to accidental trauma. This is in accordance with Aruljothi *et al*., (2012) [1] who reported that highest incidence of teat affection was reported in the age group of 3 to 7 years. Regarding the calving age, 36.36% (n=8) of the cases occurred during the third calving, followed by 31.81% (n=7) during the second, 9.09% (n=2) during the first, 13.63% (n=3) during the fourth calving and 9.09% (n=2) during fifth calving. This is in contrary to Kadu and Gahlod (2013) [3] who reported the highest percentage of teat affections occurred during second parity.

Breed-wise incidence for traumatic teat injuries accounted 54.54% (n=12) of Crossbred Jersey, 27.27% (n=6) were Holstein Friesian crossbreeds, 9.09% (n=2) were Gir and 9.09% (n=2) were Sahiwal. This may be due to the high population of and owner's preference in rearing crossbred Jersey and Holstein Friesian cows for their high milk yield. The Breedwise incidence were in accordance with Nouh *et al*., (2014) [7] and Kanjanadevi (2017) [4] who reported that cross bred jersey is more susceptible to traumatic teat injuries.

Among the lactation period, highest incidence was recorded in early lactation (Fig 1). This may be due to udder becomes fully distended with milk resulting in increased tension on the teat tissues and reduced elasticity, which predispose the teats to mechanical trauma. This coincides with the findings of Molaei and Ebrahimi (2013) [5] who stated that teat injuries were recorded during the first month after calving corresponding to the phase of high production. The increased frequency of such lesions around parturition may be attributed to udder engorgement and greater mobility of the animal during this period (Bristol, 1989) [2]

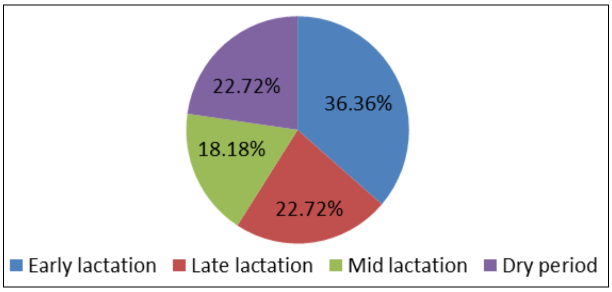

Fig 1: Incidence on stage of lactation

Table 1: Etiology wise incidence of teat injury

Etiology	Percentage
Self infliction	45.45%
Barbed wire	22.72%
Thorn injury	18.18%
Wooden stick	9.09%
Gore injury	4.54%

The etiology wise highest incidence for traumatic teat injuries was self infliction followed by barbed wire (Table 1). This may be due to pendulous udders or elongated teats as these structures are easily struck by the hind limbs during such movements. This is in accordance with Mulon (2016) [6] who reported that overcrowding of animals with enlarged udders after calving in tie stall or free stall barns increases the risk of teat injuries either self-inflicted or caused by other animals.

Summary

From the present study conducted it is concluded that the highest incidence of traumatic teat injury is observed in crossbred Jersey of five to six years age group on 3rd calving by self infliction in early stage of lactation.

Conflict of Interest

Not available

Financial Support

Not available

References

1. Aruljothi N, Balagopalan TP, Rameshkumar B, Alphonse RMD. Teat fistula and its surgical management in bovines. Intas Polivet. 2012;13(1):40-41.
2. Bristol DG. Teat and udder surgery in dairy cattle. Part 1. Compend Contin Educ Vet. 1989;11:868-73.
3. Kadu BM, Gahlod BM. Surgico-therapeutic management of teat affections in bovine. Nagpur (India): Maharashtra Animal and Fishery Sciences University; 2013.
4. Kanjanadevi G. Therapeutic ultrasound as an adjunct protocol for teat obstructions in bovine. Chennai (India): Tamil Nadu Veterinary and Animal Sciences University; 2017.
5. Molaei MM, Ebrahimi S. Experimental reconstruction of teat cutaneous wound by ear skin graft in dairy cattle. Iran J Vet Med. 2013;7(4):271-6.
6. Mulon PY. Surgical management of the teat and the udder. Vet Clin Food Anim. 2016;32:813-32.
7. Nouh SR, Korittum AS, Elkammar MH, Barakat WM. Retrospective study of the surgical affections of the teat in dairy cows of Army Farms and their successful treatment. Alex J Vet Sci. 2014;40(1):65-76.
8. Premsairam C, Aruljothi N, Balagopalan TP, Alphonse RMD, Abiramy P. Surgical management of traumatic teat fistulas with polyester sutures in crossbred cows. IOSR J Agric Vet Sci. 2020;13(3):51-5.
9. Stavropoulou E, Bezirtzoglou E. The role of milk microbiota on the development of intramammary infections in dairy cattle. Fermentation. 2022;8(5):235.
10. Tiwary R, Hoque M, Kumar B, Kumar P. Surgical condition of udder and teats in cows. The Indian Cow. 2005;25-7.
11. Rainard P, Celine R. Innate immunity of the bovine mammary gland. Vet Res. 2006;37:369-400.

How to Cite This Article
Swetha P, Kokila S, Kathirvel S, Yogeswari R, Kumaresan A, Dharmaceelan S. Retrospective study on the incidence of traumatic teat injury in cattle (2024-2025). International Journal of Veterinary Sciences and Animal Husbandry. 2025;10(11):207-208.