

## Case Report



## Clinical management of Bovine Ulcerative Mammilitis- a Case Report

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**Abstract** | A cow suffering from Bovine Ulcerative Mammilitis (BHM) was diagnosed on the basis of clinical symptoms exhibited by the animal and seasonal occurrence in winter and treated with the use of broad spectrum antibiotics, antihistaminic, Non-steroidal anti-inflammatory drugs (NSAID), along with Immune stimulating multivitamins, minerals supplement and local application of antiseptic cream. Animal was shown uneventful recovery and restore milk up to normal level due to early diagnosis and treatment.

**Keywords** | Bovine Ulcerative Mammilitis (BHM), cow, Teat Ulcer, Antibiotics, Antihistaminic, NSAID

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## INTRODUCTION

BHM is a relatively uncommon condition but cause significant pain and discomfort. It causes severe economic loss to dairy owners in terms of loss of milk production and in chronic stages the disease is converted in most devastating disease mastitis. (Kachhawa et al., 2017). Bovine herpes mammillitis (BHM) is a viral disease of cows and buffaloes caused by bovine herpes virus type 2 (BHV2) under family Herpesviridae and characterized clinically in typical cases by appearance of ulcers and scabs on teats (Radostits et al., 2007). It is more prevalent in primiparous cows and buffaloes i.e in their first lactation. Most cases occur within the first two months of lactation (Sharma et al., 1998). The stress of calving particularly with udder edema and hormonal changes lead to activation of BHM virus and development of signs (Kemp et al., 2008). BHM virus is transmitted through milker's hand, milking equipment, biting insects, semen and air (Kemp et al., 2008). Hind quarter's teats are more frequently involved than the front teats (Mouli, 1992). BHM is more prevalent in winter season than in other seasons of the year (Bitsch, 2011; Sharma et al., 2005). Abd-El-Hady (2015) has given another name to this condition as ulcerative Thelitis. Bovine herpes

virus (BHV-II) can cause an acute, ulcerative condition of teat and udder skin of dairy cows and buffaloes that is frequently considered as bovine ulcerative mammilitis (Syed et al, 2009, Shridher et al, 2014).

## MATERIALS AND METHODS

A cross breed cow was presented with history of calving 16 days back and enlargement of udder and painful ulcerative lesions on all teats in the last week of January 2020. The blisters were present which got ruptured, sloughing of skin, and formation of ulcers (Figure 1). Cow did not allow for milking clearly indicates that animals having intense pain. On clinical examination, there was normal temperature (101.5°F) while feed intake was reduced. Swollen teats of forequarters showed sloughing of skin and leaving raw ulcers. During entire course, the cow showed pain while milking and did not allow farmers to milk out resulting in retention of milk in the affected quarters which led to development of mastitis which was confirmed based on pH of milk checked by Mastrip test.

Based on clinical symptoms and ulcerative lesion on teats and seasonal occurrence of BHV is more common in win-

ter it was diagnosed as Bovine Ulcerative Mammilitis after differentiation from pseudo cowpox disease which is characterized by Horse shoe shape lesion on teats. After diagnosis of Disease as Bovine Ulcerative Mammilitis, the cow was treated with inj Enrofloxacin @5-10mg/kg BW IM OD, Inj Chlorpheniramine maleate @ 10ml IM OD, Inj Meloxicam @10ml IM OD for 7 days and supportive treatment with multivitamin Multistar© (Vet Mankind Pharma) @ 50ml/day orally was given for 10 days and local application of Povidine Iodine Ointment twice daily till complete resolve of wounds.



**Figure 1:** Typical ulcerative lesion of bovine herpes mammilitis on teats.

## RESULTS AND DISCUSSION

On third day morning post treatment animal was showing sign of relief in udder pain and ulcers. On 7<sup>th</sup> day animal was recovered and milk production was resumed 14<sup>th</sup> days post treatment but not as earlier production. Bovine Ulcerative Mammilitis was diagnosed clinically Based on swelling, blisters, sloughing of skin and formation of ulcers in the teats of all quarters of the cow especially lesion was more prominent in fore quarter while Sreedevi et al. (2003)<sup>[9]</sup> and Radostitis et.al (2007) described more frequently involvement of hind quarter in case of Bovine Ulcerative Mammilitis. As we know antibiotics does not working in case of viral diseases but to control the secondary bacterial infection in case of BHM, animal was treated with broad spectrum antibiotics Enrofloxacin. Antihistaminic (Chlorpheniramine maleate) and Non Steroid anti inflammatory drug (Meloxicam) were used to reduced the inflammatory signs and pain. Use of Multivitamins (Mutistar©) contains huge amount of vitamin A, E, C along with various minerals as selenium and zinc sulphate which acts as immunostimulant, leads to faster recovery because BHM are mainly infect animals in a state of immunosuppression i.e at the

time of calving due to stress (Bitsch, 2011). This clearly indicates multivitamin supplementation is necessary for improving immunity against Herpes virus type 2 infection to get faster recovery with normal milk production. These finding is similar with Bitsch, 2011. Hence animal restored its milk production slightly lesser than earlier after 14 days post treatment. These findings concords with findings of Abd-El-Hady (2015). The results are also in agreement with the findings of Singh et.al (2003). Povidine iodine ointment was found quite effective for local treatment of ulcers on teats of cows and buffaloes either case of pseudo cowpox disease or Bovine ulcerative mammilitis. BHM is a curable disease but if not interrupted early it may leads to mastitis and causes severe economic loss to the dairy farmers.

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