

## Contagious Ecthyma: The Benefits of Allopathic and Herbal Interventions

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### Abstract

Contagious ecthyma is a viral disease that poses a significant threat to the health and well-being of goats and sheep, making it a major concern for farmers who raise these animals. Unfortunately, many of these farmers are unable to afford the costly treatments required to combat this debilitating illness, leaving their herds vulnerable to its devastating effects. During one of our routine clinic visits, we encountered a herd of goats that had fallen victim to contagious ecthyma. A total of 17 goat kids and 4 adult goats were found to be suffering from this ailment. To combat this viral disease, we employed a combination of allopathic medicines, which were provided by our team, and herbal remedies such as aloe vera and neem paste. Our diligent efforts proved to be successful, as all of the affected animals made a full recovery, and there were no fatalities during this period.

**Keywords:** Contagious ecthyma, Goats, Jaipur, Treatment.

Orf, also known as contagious pustular dermatitis or contagious ecthyma, is a viral disease caused by the parapox virus of the subfamily Chordopoxvirinae, family Poxviridae (Pal *et al.*, 2013). It affects both wild and domesticated artiodactyls, but is more common in small ruminants like sheep and goats (Haig *et al.* 2006). Orf is highly contagious and can have a significant impact on the economy of developing countries, including India (Gelaye *et al.*, 2016). Symptoms include lesions on the oral mucosa, nostrils, tongue, ears, and teats of nursing mothers, which can lead to anorexia or starvation and abandonment of offspring. Orf is usually diagnosed based on symptoms, but must be differentiated from similar conditions. The lesions in goats and sheep go through a series of stages, starting with maculae and ending with scab formation (McKeever *et al.*, 1988). The Orf virus is attracted to the skin and causes growths on the mouth and nose. These growths usually go away within 1-2 months. The first signs of the disease are red spots, followed by blisters, bumps, pus-filled bumps, and scabs. Young animals after being weaned are more likely to get the disease and have more severe symptoms (Bharathy and Akila., 2015). Orf frequently affects young ones during the post-weaning period. The disease is not normally fatal but can be debilitating and fatal under certain circumstances. The infection occurs by direct or indirect contact with infected animals or their saliva or tissue containing the virus (Mohammad *et al.*, 2016). Zoonotic diseases are most commonly transmitted during specific activities such

as lambing, docking, shearing, drenching, or slaughtering of infected animals. The decrease in production, decrease in value of meat, leather, and wool in both local and global markets, and expenses associated with being zoonotic are all factors that contribute to financial losses (Nandi *et al.*, 2011).

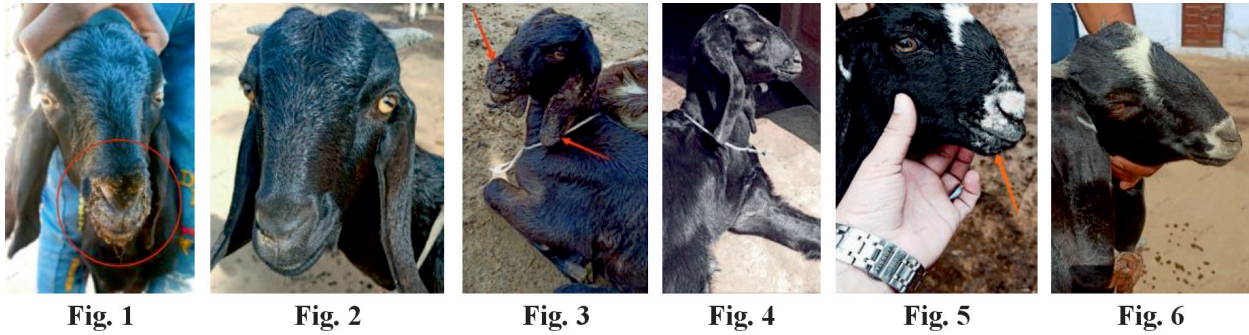
### Case History and Observations

During our regular visits to villages near Jaipur as part of our ambulatory clinic duties, we came across a group of 32 goats in Jeetawala village near Jaipur in July 2021. Among them were 17 goat kids of age about three to four months and 4 adult goats displaying symptoms of contagious ecthyma. The majority of the animals had lesions, such as loss of appetite, dullness, fever ranging from 104°F to 105°F and severe cauliflower-like growths around their lips covering their nose, muzzle and ears. The owner of the goat herd informed us that most of the goats were experiencing inappetence due to the lesions on their lips and muzzle, causing them to become weak day by day. There were also chances of secondary bacterial infection as the goats had been suffering for the last 10 days.

After reviewing the animal's medical history and examining its symptoms, we made a preliminary diagnosis and started treatment. Unfortunately, there is no treatment for Contagious Ecthyma since it is caused by a virus. However, we can alleviate the animal's suffering by administering supportive care and antibiotics. For treatment of animals we used both

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Figures 1, 3, 5 are showing dry, proliferative, scabby lesions at lips, muzzle, nose and ears suggestive of Contagious Ecthyma. Conversely, Figures 2, 4, and 6 showcase goats that have successfully recovered post-treatment.

allopathic and herbal medicines, in allopathic treatment we gave Inj. Enrofloxacin @ 5 mg/kg B.wt. as antibiotic, Inj. Megludine @ 1.1 mg/kg B.wt. as analgesic, Inj. Tribivet @ 0.5-1 ml as multivitamin, all injectables given intramuscular to each affected animal continuously for five days. Additionally, their lesions were cleaned with a diluted solution of potassium permanganate and then treated with a paste made from aloe vera and neem. This herbal treatment was continued for 15 days, but most animals showed improvement within 7 days.

## Discussion

Contagious Ecthyma is a highly contagious viral disease that affects goats and other small ruminants. These findings can guide veterinary practitioners in managing and preventing the spread of the disease in field conditions. The animals in this study recovered successfully with a combination of allopathic and herbal medicines. Goat owners are often poor farmers who rely on their animals for milk and money, so these contagious diseases can have a significant economic impact. In young kids, it is important to use bactericidal antibiotics rather than bacteriostatic to prevent mortality. This study provides valuable insights into the clinical manifestations of the disease and the efficacy of treatment in promoting recovery.

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