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A Case Report of Contagious Ecthyma Associated with Myiasis in Salem Black Goat

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ABSTRACT: A two years old Salem black doe was presented with the history of necrotic pustular lesions around the lips and commissure areas. Doe was administered with antibiotic, antihistaminic and topical application of boroglycerine for five days. Maggots were removed manually and anthelmintics and fly repellent spray instilled at the site of myiasis. Animal recovered uneventfully.

Keywords: Orf, Goat, Fluoroquinolone.

INTRODUCTION

Contagious ecthyma, zoonotic viral disease caused by orf virus of the family Pox viridae (Mathews, 1979) which is more common in sheep and goat (Lovatt *et al.,* 2012). The disease occurrence is more severe in goats than in sheep. It affects the skin around the mouth and prevalent worldwide where sheep and goat are raised (Nandi *et al.,* 2011). The disease outbreak mostly occurs between autumn and spring but its severity is more in autumn and winter than spring (Kumar *et al.,* 2015). The disease is common in young animals during three to six months of age, but mature animals may also be affected (Ndikuwera *et al.,* 1992). The disease initially present itself as erythema which later develops into papules. These papules progress to develop into scabs (Housawi *et al.,* 1993) or pustules before encrusting. They can spread around the mouth (both outside and inside), lips and tongue. The infection spreads by direct and indirect contact of infected animals or with infected materials. Sharma *et al.* (2016) reported that orf virus acts as an opportunistic pathogen due to any of the immunosuppressive infection. Complications mainly due to bacterial infection and myiasis. This case report deals with the treatment and preventive measures of orf associated with myiasis.

CASE HISTORY AND OBSERVATIONS

A two years old Salem black doe weighing around 20 kg present in the Livestock Farm Complex, Veterinary College and Research Institute, Udumalpet was having the history of necrotic pustular lesions all over the lips and commissure areas. A slight swelling was noticed in the inter – mandibular space. A thorough physical examination was carried out along with the measurement of body temperature (39ºC), heart rate (76 beats / min), respiratory rate (60 cycles / min) and pulse rate (76 beats/min). The conjunctival mucous membrane was pinkish. Purulent nasal discharge was also observed. Feeding and voiding habits of the animal was absolutely normal. Diagnosis was made based on characteristic lesions of contagious ecthyma.

TREATMENT AND DISCUSSION

Animal was treated with a fluoroquinolone group of antibiotics Inj. Enrofloxacin @ 3 mg/kg body weight (i/m) along with antihistaminic Inj. Chlorpheniramine maleate 10mg (i/m), anti – inflammatory agent Inj. Meloxicam 10mg (i/m) for five days and Sol. Boroglycerine for topical application on the lesion after cleaning with Sol. Povidone iodine for seven days. To combat myiasis, Inj. Ivermectin 50mg (s/c) was given and maggots were removed manually and spray D-mag was applied and the same regime was continued for five days. The doe recovered uneventful.

Enrofloxacin belongs to fluoroquinolone group and is a potent DNA gyrase inhibitor causing bactericidal action (Prescott and Baggot, 1994). It is active against most of the Gram-positive and Gram-negative bacteria. Efficacy might be due to high bioavailability and better tissue penetration of fluoroquinolones (Anadon *et al.,* 1985). Meloxicam is found to be most effective in reducing inflammatory changes and relieving the animal from pain and pyrexia. Several sheep and goats severely infected with contagious ecthyma had been found dead or moribund (Toweill *et al.,* 2004). It is evident that prehension and mastication will be altered due to severe involvement of lips, buccal mucosa and tongue (Reddy *et al.,* 2016). Orf is a common viral infection in goats with self – limitation, but complication occurs if it gets

associated with myiasis. So, preventive measures like fly repellent neem oil or topical sprays are recommended. Complications like secondary bacterial infections can be avoided by antibacterial drugs. Sanitary measures and disinfections practices are recommended.

CONCLUSION

In conclusion, based on the current study, contagious ecthyma can easily spread from infected animals to other animals of the same flock and also to the animals of other flock while grazing when they are in contact with infected animals or indirect contact with infected materials. Treatment of contagious ecthyma with Inj. Enrofloxacin, Inj. Meloxicom and topical application of Boroglycerine showed an early full recovery of animal without any adverse reaction. Proper sanitary measures and disinfection practices are recommended to prevent and control the infections.

FUTURE SCOPE

The disease occurred in this particular agroclimatic condition (southern part of India) was successfully treated with the current plane of treatment. The suitability of this medication schedule may be adopted in other agroclimatic conditions to find out the efficacy of treatment.

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Conflict of Interest. None.

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