

# EVALUATION OF THE THERAPEUTIC EFFECT OF CHLORAMPHENICOL SPRAY IN TREATMENT OF BOVINE DIGITAL DERMATITIS

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## **Abstract:**

Bovine digital dermatitis is one of the most important infectious diseases of feet region in some dairy farms. Economic aspect of disease is important because of decreased milk yield, weight loss, impaired reproductive performance, increased number of cows culled, and cost of treatment and control. Many dairy farms in Iran have experienced this disease in 2 recent decades. Little is known about the cause and epidemiologic impact of disease. It is believed to be a multifactorial disease in which infectious agents (Spirochaets) are primarily involved. Many therapeutic methods have been experienced for treatment and control of disease such as copper sulfate and formalin foot bath, surgical removal of lesions and use of antibiotics as foot bath or by local spraying, that the latest has have more successful results. Several antibiotics have been used for this purpose. But there is no enough published information about the therapeutic effects and duration of treatment for some drugs such as chloramphenicol. So in this study the therapeutic effects of commercial chloramphenicol spray in cases of digital dermatitis were examined.

Twenty cows with clinical lameness due to digital dermatitis were chosen and divided to four equal groups (3 treatment groups and the fourth group as a control). After washing the affected feet with medium pressure running water in all groups, the heel and pastern area were sprayed with commercial chloramphenicol ( contains 1% chloramphenicol palmitate ) for one day in group 1, two days in group 2 and three days in group 3. In control group distilled water was sprayed in area for three days.

One week after the beginning of the treatment, cows were examined clinically. Lameness in all treated cows was abolished except the cows in control group. Examination of feet lesions showed complete improvement of disease in eight cows of groups 1 and 2 and all five cows in group 3. The improvement of disease in one cow in group 1 and one cow in group 2 was incomplete, because they were affected by severe atypical form of digital dermatitis with involvement of interdigital space.

Based on the results of this study, for treatment of sporadic cases of digital dermatitis with commercial chloramphenicol spray, one application of drug can be efficient in common forms of disease. But in more severe and complicated cases it may be necessary that the treatment to be continued for two to three days.