



An Overview of Digital Dermatitis in Iran

Marzieh Faezi 1*, Alireza Bahonar 2, Iraj Nowrouzian 3, Ahmadreza Mo-hamadnia 4

1.DVM., Specialty board certified in veterinary epidemiology, faculty of veterinary medicine, University of Tehran. Iran.

2.Department of Food hygiene and quality control, University of Tehran. Iran.

3.Emeritus Professor, Department of surgery, University of Tehran. Iran.

4.Department of clinical sciences, faculty of veterinary medicine, Ferdowsi university, Mashhad, Iran.

*marziehfaezi92@ut.ac.ir

Bovine digital dermatitis (BDD) was first reported in Iran in 1979. The highly contagious characteristics of these lesion resulted in about 50% within herd prevalence in some part of the world. This painful lesion makes the cow uncomfortable and it is a welfare issue due to lameness. BDD is a complex polymicrobial disease that multiple species of *Treponema* are critical in development of lesions. The detection of *Treponema* species in non-healing claw horn lesions arose attention to control the disease in herd in herds affected by this type of claw horn lesions. Although there are controversial reports about the significant economic losses of BDD, the economic impact of this lesion on heifers including reduced milk production and reproductive performance effects is notable due to the age specific prevalence of BDD in younger cows.

A comprehensive literature review about BDD in Iran resulted 27 papers met the inclusion criteria. The research was conducted in Farsi (Magiran, SID, CIVILIKA) and English (Pub Med, CABI) databases and google scholar including “Digital Dermatitis” AND “Iran”. This search resulted in four conference abstracts, 1 review article and 23 original articles and thesis. These papers were about Etiology (2), Histopathology (4), treatment and monitoring strategy (5), The association between BDD and management indices (5) and reporting prevalence (7). The first step of evaluating the economic losses or the burden of the disease on dairy industry is to understand the prevalence and annual incidence. The search results showed that the prevalence, which is studied in central parts of Iran, is reported up to 13.45% (cow level



prevalence). However, there is not any comprehensive study about the herd level prevalence nor cow level prevalence in different parts of Iran.

The unpublished data about the annual incidence due to passive recording systems in three commercial farms (between 1000 to 3500 dairy farms) showed a rate between 1.8% - 15.63%. In most circumstances BDD is the commonest infectious lesion in these dairy herds and it is in the second after sole ulcer.

The lack of published data and a monitoring and survey system for recording the incidence of claw horn lesion specially BDD caused a blur interpretation of BDD situation in Iran. The importance of recording and analyzing lameness data accurately, is neglected and the need for updating data recording and analyzing procedures in dairy farms and conducting comprehensive and targeted researches to evaluate lameness situation in the herds is required.

Keywords: Bovine Digital Dermatitis, dairy farm, claw lesions, Iran.