

Infectious Lesions of the Bovine Teat ¹

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The occurrence of teat lesions tends to increase during autumn and winter. When developing a list of probable causes, several infectious conditions should be considered. Viral infections requiring differentiation include Pseudocowpox and Bovine Herpes Mammillitis. Characteristics of these and other teat lesions are described under the following headings.

PSEUDOCOWPOX

The clinical appearance of pseudocowpox may be variable. Introduction of the virus into herds may result in the majority of cattle being affected within 6 weeks. Because infection by this member of the pox virus family results in immunity of a short duration, reinfection is common. Thus, in herds with chronic infection there are usually several cows affected with lesions at any given time. Lesions do not form as vesicles. Instead, there is localized swelling, followed within 48 hours by a papule, and then exudate and scab formation. Extension of lesions usually occurs in a centrifugal manner and the formation of "ring" or "horseshoe" scabs are considered cardinal signs of this infection. Scabs may extend the entire length of the teat. The infection usually runs its course in an animal in 5 to 6 weeks.

There is no specific treatment beyond increased emphasis on sound milking hygiene practices. Effective teat dipping and disinfection of milking units between cows may slow the cow to cow spread of infection, however, under most circumstances susceptible animals will eventually become infected and develop lesions of varying severity. Milkers are advised to wear rubber gloves for their own protection as the virus is capable of infecting man. In humans, lesions similar to those occurring on the skin of the cow's teats and udder are frequently observed on the milker's hands and arms. In the literature these characteristic lesions are referred to as "Milker's Nodules." A coincidental advantage of wearing gloves is that gloved hands can be disinfected much more easily thus further limiting cow to cow spread by the milker's hands.

BOVINE HERPES MAMMILLITIS

Mammillitis (BHM) has generally been considered to be caused by bovine herpesvirus 2 (BHV2) which is distinct from BHV1 (the causative agent of IBR). A second herpesvirus, DN599, has also been associated with mammillitis. In some cases, the viral infection may spread rapidly through a herd with 50 percent or more of the cows affected. In others, often in herds where the infection has existed,

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only heifers at freshening may be affected. In its acute form, BHM begins with edema of the skin and the formation of large (1 to 2 cm) vesicles. Often the vesicular stage passes so quickly as to go unnoticed. In fact, the first sign a producer may observe is a denuded teat. Sloughing of teat skin may be so extensive that initially, producers may attribute causation to trauma. Some believe that after introduction into a herd, chronic forms of BHM, with less extensive lesions, develop.

Teat Lesions

Economically, losses may be severe as animals usually resist milking and must be culled. Spread from cow-to-cow probably occurs during the milking process. In the United Kingdom, spread farm-to-farm is thought to be by insects. Diagnosis is by clinical signs and viral culture of fluid from the lesions. Blood tests are also available. The value of such tests in acute BHM may be questionable because cows are usually culled before a serologic response would be noted. For chronic lesions that may result from BHV2 or DN599, the value of serologic results must be weighed when considering the overall list of possible causes.