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Animal Health

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Cattle Warts

Bovine Papillomatosis

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Warts are caused by infection with the contagious bovine *papillomavirus*. Four types of the virus are known to produce skin lesions. All have been described as hardy. Two of the viral types cause most of the warts found on the head and neck of cattle. They will survive in the environment for weeks or months if protected by pieces of tissue such as a shed wart or bits of tissue on a halter. Because of the infectious nature of the wart virus, animals with warts are disqualified from shows and exhibitions.

Calves are most susceptible; few cases of warts seen in cattle over 2 years of age. Occasionally, warts are found on the teats of lactating dairy cows. Calves are easily infected the *papillomavirus* entering the cut or abraded skin. All too frequently calves are inadvertently infected when tattooed or ear tagged for identification purposes. In fact, it is not unusual to find an entire tattoo overgrown with a mass of warts. Warts will appear 1 to 6 months after inoculation with the virus. Warts often spread from the ear to other sites on the head and neck.

Papillomavirus is widely distributed in cattle. Cattle are the main source and natural reservoir of infection by the virus; but, halters, ropes, and instruments can serve as a potential source of infection. Not all animals carrying the virus will have warts. It can be transmitted from the inapparent carrier to the susceptible calf.

Prevention

Commercial vaccines are available; and if used as directed, they may help prevent warts in cattle not previously infected. Autogenous vaccines are prepared from chemically treated warts taken from animals in a herd. In fact, the autogenous vaccine is more apt to have the strain or type of *papillomavirus* causing the wart problem in a herd than some of the commercial vaccines.

Instruments and tack used on infected animals should be disinfected before use on other animals. The infected animal may not have visible warts, but they may still contaminate equipment. Tattoo or tagging pliers can be disinfected between use on calves, with a 2 to 4% solution of formaldehyde. Dilute the liquid formalin 1 to 18 for a 2% solution or 1 to 9 for the 4% solution. Rinse off blood or tissue from the pliers before immersing in the formaldehyde. Maintain two sets of the instruments and alternate them in use thereby providing adequate time in the formaldehyde to inactivate the virus. Rinse them before using and wear examination gloves or rubber household gloves to protect hands from irritation. Tack that has been in contact with infected calves can also be disinfected with formaldehyde.

Treatment

Warts usually shrink and drop off after a few months. The spontaneous recovery has probably been the basis for the alleged effectiveness of many regimes of treatment—including several kinds of oil, toothpaste of various brands, wart pinching, or twisting off close to the base. Any of these appear to be successful if the warts regress spontaneously.

Multiple injections of vaccines have been credited for being an effective cure. Vaccines are considered to protect cattle, but they have not been found to be of value in treatment. Warts can be removed surgically with a scissors or a side cutter. Bleeding can be controlled, if a problem, with silver nitrate applicator sticks. A wound spray should be applied to prevent problems with flies. Healing is rapid and the animals should be show-eligible in a few days. Usually the warts do not recur.

Proper disinfection of tack, tagging pliers, and tattooing instruments will prevent the spread of the wart virus.

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