Necrotic Vulvitis of Cattle

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For the past several years there has been an increased incidence of a disease that can best be described as a necrotic vulvitis of cattle. The increased incidence is perhaps partly due to an increase in numbers of female feeder calves and heifers in this region. The condition constitutes another reason why farmers and feeders pay more for steers. Some even refuse to feed heifers. Except for one steer, bulls and steers have not been found to show any lesions either about the anus or the external sex organs. Usually milk cows that are turned into the feed lots during the day remain free. Of four farms recently visited the cows were unaffected on three and diseased on the fourth.

The lesions are confined to the vulva and the skin in that immediate region. There is some dispute as to the initial lesions in the usual field outbreak, and it is questionable if they have been observed. Some believe that the lesion starts as a small eroded spot in the lower commissure. However, this is doubtful because a similar lesion is often seen in heifers that never are affected with necrotic vulvitis. Thus the disease, as seen in the field, is always in rather advanced stages. One or both lips of the vulva may be affected. There is moderate or extensive swelling. One side may show only a little thickening or the enlargement may be four to six inches across. The inner surfaces of the lips of the vulva show inflamed, scratch-like marks in the less advanced cases. These scratch-like areas are red and elevated or swollen. The skin of the vulva may show like lesions. Swelling seems to start early as if infection readily gains or has gained entrance to the deeper parts. Necrosis also appears early, and these necrotic areas may extend two to three inches into the swollen parts. In fact, it seems that necrosis may sometimes start in the deeper lesions. There is bleeding from the more delicate inner parts of the vulva and rupture and hemorrhage of some of the deeper vessels so that the whole swollen necrotic mass may be covered with blood. The swellings may extend up to the lower part of the anus and also gravitate downward six to ten inches toward the udder. They may protrude outward to push the tail to one side. In the worst cases there is loss of weight which appears to be due to the extensive necrosis and its effect on the animal. This is the only evidence of general systemic effect and is unusual.

Aside from the fact that the affected parts are painful when handled, there is not much, if any, evidence of discomfort. The lesions are strictly localized to
the vulva except as noted above. The vagina and rectum are normal.

From observations of diseased cases one would conclude that the condition is caused by an infection and such appears to be the case, although it cannot be transmitted by the usual methods. Genital infections of the female can almost always be transmitted by the male as well as to the male. This apparently is not the case in necrotic vulvitis nor has it been possible to transmit the infection when bits of diseased parts are rubbed into the surface of the vulva of healthy heifers. When the vulva of healthy heifers has been injected with emulsified diseased tissues, the disease has also failed to develop. The feeds given to the diseased animals have always been of good quality. A history of the cases last year seemed to eliminate the feed as a cause except for the possibility of soybean hay. Feeding experiments using soybean hay from an affected farm gave negative results. Added evidence that no feed is responsible is afforded also by the fact that no change of feed has any influence on the course of the disease. Animals recover when retained on the same feeds throughout, which is not the case with the usual toxic feed trouble.

Now certain evidence, direct and circumstantial, strongly indicates that hogs are responsible for the trouble. First, it is known that hog bites in this region cause a lesion almost, if not, identical to that seen in necrotic vulvitis. Secondly, the disease usually, if not always, is incurable as long as hogs are allowed to remain with the cattle. It is a fact that hogs sometimes acquire the vicious habit of annoying heifers. Boars are especially apt to do so. When one hog starts the trouble, others quickly learn. On some premises the hogs follow the heifers about, waiting for them to lie down. That the disease has not been transmitted artificially, that only the external parts are affected, and that the sex organs of the male are not affected, all indicate that some animal such as the hog must transmit the disease.

One can make a very strong case against the hog, but there are a few weak points. In rare instances the disease develops in heifers on farms where, it is claimed, hogs have not been associated with cattle. Again, washings from hogs' teeth taken from premises with diseased cattle, do not produce the disease when injected into the vulva. However, such injection does not produce the tissue damage of a bite.

In treatment, the first step is to separate the hogs and cattle. This is very essential. Secondly, the lesions must be cleaned after which some veterinarians apply an antiseptic while others use a protective salve. This must be repeated every few days or every day in case of advanced lesions.

In conclusion, it may be said that the author still favors the theory that hogs are the main factor in the disease. No attempts have been made to isolate and classify the bacteria present and none will be made until a greater effort has been made to transmit the disease by artificial means. Histological study of lesions has not revealed anything of significance as to etiology.

At the January 17 meeting of the Iowa State Chapter of the American Veterinary Medical Association, Dr. W. H. Riser, of Des Moines, Iowa, gave an interesting talk on the upward trend of the Veterinary Profession and the part the students as future veterinarians have in the further development of the profession. Dr. Riser suggested that every student should plan, upon graduation, to go into general practice for at least one year, regardless as to what branch of the profession he intends to follow. Much of his talk centered around ethics and sound business practices.

In the business meeting, which followed, reports were made by the Treasurer on the Chapter's finances and the Veterinary Formal Dance returns. It was announced that the charter from the American Veterinary Medical Association had been received.

The Veterinary Student