1943

Gangrenous Mastitis Discussion

Wendell J. Kopp
Iowa State College

Follow this and additional works at: https://lib.dr.iastate.edu/iowastate_veterinarian
Part of the Large or Food Animal and Equine Medicine Commons, and the Veterinary Pathology and Pathobiology Commons

Recommended Citation
Kopp, Wendell J. (1943) "Gangrenous Mastitis Discussion," Iowa State University Veterinarian: Vol. 5 : Iss. 4 , Article 13.
Available at: https://lib.dr.iastate.edu/iowastate_veterinarian/vol5/iss4/13

This Article is brought to you for free and open access by the Journals at Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State University Veterinarian by an authorized editor of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
attention to the cows. The owner believed that the bull had settled three cows as they had not come in heat since they were bred.

General Condition Good

The general condition of the animal when presented was quite good. The pulse, temperature, and respiration were normal. The bull appeared healthy in every respect; he was well fleshed and his appetite was good.

An attempt was made to examine the penis for any malformations or enlargements, and also to determine if any difficulty was encountered in protruding the penis from the prepuce. A cow (not in heat) was led into the stall, but the bull refused to pay any attention to her. The bull was then cast and manual manipulation was used in an effort to protrude the penis, but the retractor peni muscles were too strong to allow this.

Two days later the bull was placed on the operating table and chloral hydrate (22 percent solution) was slowly injected into the jugular vein to relax the penis and permit its protrusion. The retractor muscles relaxed after two ounces of the chloral hydrate solution had been given. Only slight anesthesia was produced with this dose. On examination it was discovered that the penis could not be protruded more than eighteen inches out of the prepuce which is a rather short protrusion for a bull of this size. The examination was interrupted by the jerky respiration and sudden profound anesthesia of the bull. All restraint was released immediately but death occurred in a few moments.

Post Mortem

The principal lesions found on post mortem examination were of multiple, chronic, hemorrhagic, purulent, cervical lymphadenitis, involving most of the cervical lymphatic chain. The original lesion was a granulating ulcer, about three cm. in diameter, located in the right cheek. A bacteriological examination revealed the presence of Corynebacterium pyogenes. Right cardiac atony was observed as well as an acute hemorrhagic volvulus of about twenty feet of the jejunum. Evidence of a toxemia was also present.

General anesthesia in the bull is always dangerous. The dosage administered in this case was just enough to produce a relaxation of the penis in a healthy bull of this size. The chance of death resulting from the anesthesia was slight if it had not been for the dilated right heart and the general toxemia. No external evidence of the atonic heart condition was shown.

The bull's lack of interest in copulation was probably due to a toxemia from the multiple abscesses and as a result this directly influenced his libido.

In the last two years, several similar cases in the clinic have been found to have a Corynebacterium pyogenes infection. Many times this condition is incorrectly diagnosed as actinomycosis as it frequently locates around the jaw and cervical region. It produces multiple abscesses similar to those of actinomycosis and the termination is nearly always fatal.

—Vaylord Ladwig, fall '43

5 Gangrenous Mastitis Discussion

Gangrenous mastitis is not an uncommon sequela of severe mastitis and if improperly handled often results in the death of the animal. The prognosis on the life of the animal is usually favorable if treatment is administered as soon as possible after diagnosis even though the affected portion of the udder may be lost.

Gangrene results from the action of putrefactive bacteria in moist necrotic tissue. The inflammation in severe mastitis causes an arteritis of the principal arteries supplying the involved quarters followed by thrombosis resulting in infarction and necrosis. Putrefactive bacteria gain entrance to the moist necrotic tissue producing gangrenous mastitis.

Symptoms of gangrenous mastitis are blue-black coloration of the skin and coldness of the affected parts. A brown fluid with a putrid odor can be milked from the diseased quarters. Areas often necrose through the wall of the udder forming a fistulous tract. In advanced cases where

(Continued on page 188)
Jr. A.V.M.A.

Dr. M. D. Johnson, a former member of the Department of Surgery, spoke at the April 14 meeting of the Jr. A.V.M.A. Dr. Johnson gave a very interesting talk on the restraint of large animals in the field.

Mr. Oderkirk, associate professor in the Dept. of Agricultural Economics, spoke to the society April 28, 1943, on the grading of poultry and eggs. Mr. Oderkirk is head of the division on the grading of poultry and eggs for the O.P.A. in Washington, D. C.

The Jr. A.V.M.A society has appropriated $400.00 for the establishment of a medical library in the clinic reading room. An additional $250.00 has been withdrawn from the treasury for the purchase of war bonds. Any money remaining from the library fund will be used to purchase additional war bonds.

Cardinal Key

Robert J. Kirkpatrick, winter '43, was initiated into the Cardinal Key, men’s major honorary society, March 11, 1943.

BOSTON HUMANE SOCIETY

(Continued from page 171)

the public schools regularly to give instruction through lectures and marionette shows in the conservation and the proper care of animals. The Animal Rescue League conducts a summer training school for the benefit of agents and executives of animal welfare organizations throughout the country, and for instruction in animal care and conservation to public school teachers and directors of humane education. These classes have been attended by hundreds of people from all over the United States.

The Animal Rescue League cooperates with the Eastern Livestock Loss Prevention Association in the improvement of handling and shipping conditions which tend to produce injuries to livestock in transit.

A stable and good pastures are maintained in Dedham, Massachusetts for the benefit of work horses which have become pavement sore, or which need a rest during the summer months. There is a cemetery for small animals and a crematory adjoining the farm. In this cemetery are buried many famous dogs as well as many beloved pets. Here, perpetual care of the graves is maintained.

ACKNOWLEDGEMENT: I acknowledge with gratitude the work of Miss Marion D. Caspole in verifying the figures used in this article and for her help in typing.—H.M.T.

The cuts accompanying this article were loaned to us by Dr. Tabbut.

CLINICAL MEDICINE

(Continued from page 175)

drainage is poor or absent, the animal will show symptoms of general intoxication.

Sulfanilamide treatment of the condition in the acute febrile stage may be used. After necrosis has begun, radical treatment is required to provide free and continuous drainage for the toxic fluids. In the early stages drainage can be made by amputation of the teat near its base. The amputation is done with the animal in lateral recumbency; 2 percent procaine infiltrated above the line of incision is given for local anesthesia. Hemorrhage is controlled with hemostats or interrupted over-lapping sutures. Drainage of the quarter may also be produced by making a vertical incision through the udder wall extending to the bottom of the milk cistern in the teat.

If extensive necrosis of the quarter has occurred, amputation of the part is necessary. For this, local anesthesia is not necessary since the sensory nerves to the part are inactivated by necrosis and toxic materials. Amputation is made well within the area of necrotic material.

Intravenous administration of dextrose solutions may be employed to aid in systemic detoxification.

—Wendell J. Kopp, fall '43

The Veterinary Student