
CLINICAL MEDICINE

Perforated Ulcers In a Young Calf

A five day old Guernsey calf was brought to the Iowa State Veterinary Diagnostic Laboratory for post mortem examination with a history of no apparent illness prior to death.

Post mortem examination revealed the cause of death as a severe peritonitis caused by the escape of gastric material from the abomasum. Examination of the abomasum revealed several peptic ulcers in the pyloric portion extending approximately 3 cm. into the duodenum. The largest of these ulcers involved an area of the mucosa approximately 2 cm. in diameter, and in the center of this was a perforation about .5 cm in size.

Microscopic examination of the non-perforating peptic ulcers revealed necrosis of the mucosa extending into the submucosa. The submucosa contained a large amount of edema and a moderate inflammatory response was present.

The herdsman, on further questioning, revealed that the calf was removed from its dam at two days of age and then offered whole milk twice daily. The calf drank very little of the milk offered. However, the caretaker was not alarmed as the calf appeared very alert. This could indicate nervousness, which might have some relationship to the cause of the ulcers in this calf.

Abomasal ulcers are very frequently found in calves, especially at the time of weaning.(1) Not only can peptic ulcers perforate and result in peritonitis, but it is also possible that an active peptic ulcer may act as the primary focus for septicemia.(2)

Peptic ulcers are probably underrated as a cause of disease in the bovine. Careful examination of the abomasal mucosa should be made in the post mortem examination of the bovine, especially of young calves.

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Bovine Eosinophilic Myocarditis

Eosinophilic myositis is a condition in which the affected muscles become infiltrated with eosinophiles. The exact etiology of this condition is not known, and while it has often been associated with parasitisms or allergic reactions, such a relationship has not been proven conclusively. The affected muscles constitute a meat inspection problem as they must be trimmed from the carcass, but the remaining tissues are edible.

The following report concerns a case of bovine eosinophilic myocarditis in which no skeletal muscle lesions were observed. This condition can be the cause of sudden deaths without any previous gross evidence of illness. Consequently, it is seldom, if ever, diagnosed on the ante

mortem state but is quite easily identified on a post-mortem examination.

Heart, liver and kidney specimens of an eighteen month old Hereford heifer were submitted to the Iowa Veterinary Diagnostic Laboratory for examination. This heifer was one of a herd of similar animals running in the owners picked corn fields. The herd was being driven when this heifer suddenly broke from the group, ran a few yards and collapsed.

Upon necropsy by the local veterinarian the only lesions noted were small, yellowish-green nodules within the myocardium. There did not appear to be any significant degree of parasitism present and the heifer was in a good general condition. The tissues were examined grossly and a tentative diagnosis of eosinophilic myocarditis was made. This diagnosis was based on the presence of greenish colored areas throughout the myocardium. A histopathological examination was then made of the affected tissue and it showed eosinophilic infiltra-

tion of approximately seventy-five per cent of the myocardial tissue and the presence of fibroblasts indicating that the condition had existed for some time. The tissues received were also cultured but all were negative for bacterial pathogens. Consequently, it can be concluded that there was little functional heart muscle remaining and when the heifer was driven cardiac failure probably resulted causing her to collapse and die.

There was no history of any previous medication nor of disease in the herd and all remaining animals appeared to be in good health.

In summary, eosinophilic myocarditis should be considered as a possible cause of acute death in cattle. It can be diagnosed on the basis of the characteristic greenish lesions of the myocardium seen on a post-mortem examination. Only those tissues infiltrated by the eosinophiles need be discarded and the remainder are edible.

Richard Jaspers 1963

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Sulphate, Manganese Sulphate, Sodium Nitrite,
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