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BRAXY (BRADSOT)

Braxy is an acute infectious disease of sheep characterized by inflammation of the abomasal wall, toxemia, and a high mortality rate.

ETIOLOGY

C. septicum is a common cause of malignant edema in animals.

EPIDEMIOLOGY

Braxy occurs only in midwinter when there are heavy frosts and snow, and usually only in weaner and yearling sheep. It has occurred in experimental sheep receiving infusions of acetic acid into the abomasum, and these were thought to cause abomasitis. Adult animals in an enzootic area appear to have acquired immunity. *C. septicum* is a soil-borne organism and in many areas can be considered as a normal inhabitant of the ovine intestinal tract.

PATHOGENESIS

Presumably a primary **abomasitis,** associated with the ingestion of frozen grass or other feed, permits invasion by *C. septicum,* resulting in a fatal toxemia.

CLINICAL FINDINGS

There is a sudden onset of illness with segregation from the group, complete anorexia, depression, and high fever 42°C or more). The abdomen may be distended with gas, and there may be signs of abdominal pain. The sheep becomes recumbent, comatose, and dies within a few hours of first becoming ill.

CLINICAL PATHOLOGY

Antemortem laboratory examinations are of little value in establishing a diagnosis. There are localized areas of edema, congestion, necrosis, and ulceration of the abomasal wall. Congestion of the mucosa of the small intestine may also be present, and there may be a few subepicardial petechiae. *C.*

septicum can be isolated by smear from the cut surface of the abomasal wall or by culture from the heart, blood, and other organs of fresh carcasses. Bacteriologic examinations of tissues must be performed within an hour of death if the diagnosis is to be confirmed. Mortality in calves with braxy-like lesions in the abomasum is also recorded.

DIFFERENTIAL DIAGNOSIS

Clinical diagnosis of braxy is difficult. At necropsy the lesions of abomasitis are characteristic, especially if the disease occurs under conditions of severe cold. Overeating on grain may cause local patches of rumenitis and reticulitis, but there are no lesions in the abomasum. **Braxy may resemble infectious necrotic hepatitis, but there are no liver lesions in braxy**. The final diagnosis depends on isolation of *C. septicum* from typical alimentary tract lesions

TREATMENT

No treatment has been found to be of any value.

CONTROL

Management of the flock is important. The sheep should be yarded at night and fed hay before being let out to the frosted pasture each morning. Vaccination with a formalin killed whole culture of *C. septicum,* preferably two injections 2 weeks apart, is also an effective preventive.

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References:
Constable PD, Hinchcliff KW, Done SH, et al. (2017). Veterinary Medicine: A Textbook of the Diseases of Cattle, Horses, Sheep, Pigs, and Goats. 11th ed. Elsevier, St. Louis, Missouri, USA.