

Epizootic Bovine Abortion in Montana?

Ronald Hamm, Doug Hammill, and Frank Pisarik*

While on an interview trip to western Montana, we were told of a serious threat to the cow-calf operations there. Doctor Jack Ward of Hamilton, Montana, believes that he has observed a weak-calf syndrome in the Bitterroot Valley for the last four or five years that resembles the epizootic bovine abortion reported from California and the intermountain area. The incidence seems to be increasing with each new calf crop and is reaching very serious proportions this spring. Projections from early calving operations indicate that losses will be tremendous this year.

Clinical Syndrome

Doctor Ward and others describe a storm of early, weak calves, late abortions, and dummy calves with morbidity of twenty to fifty per cent in affected herds. Most of these calves die within forty-eight hours of birth. Many are born weak and unable to eat or stand. Some calves are apparently normal at birth but begin to show signs in a few days. A few can be saved with supportive therapy but most do not respond. Doctor Stanley Taylor of Stevensville, Montana, describes a similar syndrome in the sheep flocks of the same area.

Post Mortem

These calves show an erythemia of the muzzle and external pinna. Characteristically they display a bilateral subcutaneous edema primarily confined to the lower extremities. Subcutaneous hemorrhages also appear bilaterally, and these are most

evident around the hocks and cannon bones. A small amount of clear fluid is usually found in the thoracic and abdominal cavities. Edema around the base of the gall bladder and between the lobes of the liver is a very consistent finding. In a small percentage of post mortem examinations a distinct localized, indurated liver lesion occurs. This lesion is light colored and well defined, appearing nodular and solid in texture. Subcapsular hemorrhages may give it a mottled appearance.

The cow-calf operations in western Montana are for the most part under range management, and placentas are difficult to find and associate with any one particular animal. Attempts are now being made to obtain placentas from herds showing evidence of this syndrome so that lesions can be investigated and isolations attempted.

Many isolations from different fetal tissues have been tried but without success.

Herds that are affected have been tested free of brucellosis, vibriosis, and leptospirosis.

People in California working with the epizootic abortion are investigating insect or tick vector transmission. Montana has very little trouble with ticks; and veterinarians there do not believe this is the answer in that area.

Whether this is EBA or not, Montana is experiencing a very serious calf syndrome and there are indications that it is moving East rapidly. There are reports from North Dakota of a similar syndrome and Mr. Hammill has observed two cases in the Iowa State Diagnostic Laboratory this spring which showed identical post mortem lesions to those we saw in Montana.

* Mr. Hamm, Mr. Hammill, and Mr. Pisarik are seniors in the College of Veterinary Medicine at Iowa State University.