

Listeriosis

~Circling Disease~



Pathology

- *Listeria monocytogenes* is a bacterial disease that is most common in ruminants but can also effect pigs, horses, some wild animals as well as humans.
- Causes a bacterial infection of the brain and central nervous system
 - Encephalitis is the most common form of the disease in ruminant animals.
 - Intra-uterine infection of the fetus via the placenta frequently results in abortion in sheep, goats, and cattle.



gram positive
bacterium

Listeriosis in ruminants

- The bacteria is found in many places in the environment –
 - Water
 - Soils
 - Mammals GI & DI tract
 - Vegetation
 - Silage
 - Feedstuffs
 - Feces from healthy animals

Causes

- **Listeriosis affects all ages and sexes...**
- Most commonly associated with the feeding of moldy silage or spoiled hay.
- But because the organism lives naturally in the environment, listeriosis may occur sporadically.

Symptoms – Clinical signs

- Confusion
- Depressed and disoriented
- Walk in circles with a head tilt and facial paralysis.
- Uncoordinated movement
- Inability to eat & drink
- Fever



Abortions

- Listeriosis may cause abortions in ewes and does
- Usually in the last third of pregnancy.
- Abortion rates vary, but have been as high as 20 percent in sheep flocks.
- Abortion occurs 10 to 18 days after the bacteria gain entry to the bloodstream.
- After abortion, most ewes recover fully.

Treatment

- The most common treatment is oxytetracycline or penicillin G administered at a very high dosage.
- Given intramuscularly, daily for 1 to 2 weeks; the first injection should be accompanied by the same dose given intravenously.
- Supportive therapy, including fluids and electrolytes, is required for animals having difficulty eating and drinking.

Recovery

- Sheep and goats usually have an acute form of listeriosis and death occurs in 4-48 hours after on the onset of symptoms.
- Recovery is very rare – can be up to 30%, but depends on early aggressive antibiotic treatment

Prevention

- **Prevention is the key to listeriosis.**
- Prevent spoilage of any type of forage or silages – pH below 5.0, because the bacteria doesn't thrive in acidic environments.
- All sick animals should be isolated/removed from the healthy animals, and disposed of properly if death occurs. (Burn the carcass) so all further contamination is ceased.

Health Concerns

- Listeriosis is zoonotic - animals can transmit it to humans.
- Most people that are exposed to listeria do not become ill. Listeriosis primarily affects people with weakened immune systems, such as the very young or very old, as well as pregnant women. Listeriosis can also cause abortions in women.