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## Listeria (Listeriosis) in Cattle

Listeriosis in cattle is caused by a bacterium known as *Listeria monocytogene* (a small, non-spore forming, facultative anaerobic, gram-positive rod).

There are three classic presentations of listeriosis. These are:

- Neurological disease eg. Meningoencephalitis (most common clinical presentation)
  - Presents as the animal isolating from herd, depression, walking in circles, head pressing, ear drooping, protrusion of the tongue, quidding, impacted food in the mouth, nasal secretions and drooling.
- Visceral (internal organ) disease – septicaemia (blood poisoning) in calves and young animals, also mastitis in cows, endocarditis, keratoconjunctivitis and uveitis.
- Reproductive disease - still births and abortions.

It should also be noted that an atypical pneumonia has been documented in feedlot cattle. This type of pneumonia is presumed to be caused by inhalation (breathing in) of *Listeria monocytogene* bacteria.

Cattle become infected by consuming contaminated materials. Common sources of *Listeria monocytogenes* include, spoiled or poorly conserved silage (high pH >5.5, low dry matter and often contains soil), decaying or rotting forage at the bottom of the feed bunks or haystack, poultry litter that has been used for bedding and compost piles.

A diagnosis of listeriosis is based on history and clinical presentation. A definitive diagnosis can be made at postmortem on histopathological examination of the brainstem (micro abscess can be demonstrated).

Treatment involves giving high doses of antibiotics (for an extended period), anti-inflammatories and other supportive treatments such as IV fluid therapy.

The earlier the treatment intervention the better the prognosis. The prognosis is poor when the affected animal has severe neurological signs and is unable to sit-up or stand.

Prevention is through reducing contamination during the harvesting, storage, handling and feeding of forages. Silage clamps should be compacted to prevent aerobic bacterial multiplication (expel all the air) and avoid feeding moldy silage and silage at the top and front of the clamp as it is likely to contain higher mounts of *Listeria* bacteria.

Listeriosis is a zoonotic disease. However, Human listeriosis is rare.

**Reference material:**

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