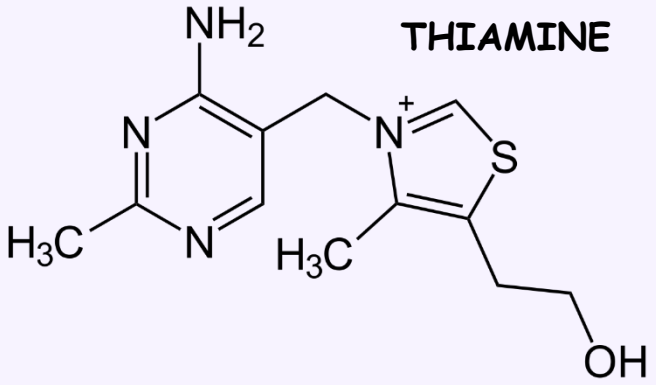
POLIO encephalomalacia

Polioencephalomalacia is a common non-infectious neurological disease of ruminants, a disease of the brain. It is usually called just "polio." It has no relationship with the infectious viral disease that people get.

The primary cause of polio is a thiamine deficiency or a disturbance in how the body uses thiamine. Thiamine (vitamin B1) is produced naturally in the rumen of sheep/goats on a normal diet, so it does not need to be in the diet. High grain diets slow thiamine production in the rumen and increase the mechanisms that degrade thiamine. Thus, sheep/goats consuming high concentrate diets are more prone to polio. Polio is most common in lambs/kids fed in a feedlot.



Another cause of polio is elevated levels of sulfur in the diet. Some alternative feeds, especially distiller's by-products contain high levels of sulfur. Amprolium (Corid®), a drug used to prevent and treat coccidiosis, can cause polio at high dosages. Some plants contain enzymes that can cause polio.

Blindness is the tell-tale symptom of polio. Sheep/goats with polio usually separate themselves and go off-feed. They are depressed and uncoordinated. Coma and death will ensue if left untreated. The symptoms of polio are similar to other diseases causing neurological symptoms, including enterotoxemia, pregnancy toxemia, rabies, listeriosis, meningeal worm, and certain toxicities. These need to be ruled out.

Star-gazing

When prompt action is taken, sheep/goats usually respond well to treatment: injections with thiamine or fortified B-complex vitamins. Several injections (6-12 hours apart) are usually given. In more advanced cases, thiamine may need to be injected intravenously, and dexamethasone may be administered to alleviate brain swelling. Sometimes, the blindness can be permanent. Consult your veterinarian for treatment recommendations. Thiamine is available via prescription only.

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