

# Subclinical Ruminal Acidosis

- Incorrect CHF feeding, overdose of sugar, starch consumption, low ration HS level reduces the ruminal pH value to below 5.5.
- In addition, the climate and shelter are also effective in the formation of subclinical ruminal acidosis.
- Stool in the stool, air bubbles are observed with untreated stools. When a piece of water is poured over the stool, the untrimmed stalks on the sieve are clearly visible.

# Subclinical Ruminant Acidosis

- In addition, undigested and undigested long fibers from the rumen are also observed.
- The excess acid that is released by the microorganisms found in the thick digestive glands and used for the formation of gas and acid by this microorganisms damages the intestinal mucosa and is excreted through the mucous membrane.
- Stool should be short, long roughage, no mucosa.

# SYMPTOMS

- A gray-gray foamy stool is visible.
- In feces, undigested granules, undigested fibers, mucosa are visible.
- Rumen movements are reduced.
- Feed consumption stops and yield decreases.
- Your heart rate increases.
- Severe diarrhea.
- Ruminant rumbling and gas accumulation.
- Laminitis, rumenitis, liver abscess, polyencephalomalacia, foot rot.

- **High concentrate feed consumption:**
- Nail diseases and health problems are increasing, decreasing rate of utilization of feed and efficiency performance are observed.
- **In cases of mild illness;**
- Temporary loss of appetite,
- Decrease in Rume motility,
- Drop in milk yield,
- Changes in color and consistency of Gaita can be observed.

- **In moderate** cases;
  - Animal food and water consumption stops.
  - Sudden decreases in milk yield occur.
  - Signs such as stagnation of animals, reluctance to behave, persistent desire to sleep, moaning, teeth creep may occur.
- In some cases, restlessness, pain, and nervous symptoms can be observed in animals.
- **In severe cases**, animals entering the coma in a short period of time are placed in a lying position. Deaths occur in untreated animals.

# PROTECTED

- The disease can be prevented by mixing the feeds well, making gradual changes in the ration and passing slowly through the concentrate.
- Rough and concentrated feed should be given together. Feeds should be given in small portions frequently.
- NDF should be present in the dry matter at a rate of 28-36%.
- The consumed particles should not be thin, long and thick.
- Excessively concentrated feed should not be given and the exercise period should be applied.
- The concentrate is added to 1.0%, 5%  $\text{NaHCO}_3$  in water.
- The roughage rate in the area should not be less than 10%.
- Rationa can participate in ionophore antibiotics.

# Treatment of metabolic acidosis

- Patients with mild symptoms may recover without treatment.
- 1. Rumen is evacuated and rumen fluid of the intact animal is given.
- Rumen fluid of healthy animal can be given 2-3 l / day. This application can continue for 2-3 days according to the condition of the animal.
- In the meantime, 20-30 g of antacids ( $MgCO_3$ ,  $Mg(OH)_2$  and  $CaCO_3$ ) are given.
- In addition, 1-2 liters of warm water can be applied in 6-12 hours

- 2. High level of antibiotics to prevent the growth of lactic acid-producing microorganisms
- (800 000 units of peniciline, 0.5-1 g tetracycline) is applied.
- 100 g of bread is given to the animal.
- Ionophore antibiotic application is useful. For this, monensin and salinomycine are given.



- 3. NaHCO<sub>3</sub> solution to provide acid and base balance at 5% iv. or probe.

Physiologically saline isotonic bicarbonate with left. infusion (50 ml).

10-20 ml calcium gluconate and 100-200 mg vitamin B1, methylene blue may be applied to increase the tone of skeletal and rumen muscles.

4. Antihistamines are given intra muscular and injected into cortical steroids to prevent intoxication.

5. The amount of ration to be consumed is reduced and very good quality dry grass is given.

# Disease Symptoms

	Akut-klinik	Kronik-subklinik
<b>Rumen pH</b>	<b>&lt;5.1</b>	<b>&lt;5.5</b>
<b>Acids</b>	<b>Laktik A.</b>	<b>VFA</b>
<b>Rumenitis</b>	<b>Evet(+)</b>	<b>Yok?</b>
<b>Liver abscess</b>	<b>Olabilir</b>	<b>Yok</b>
<b>Laminitis</b>	<b>Could (≪)</b>	<b>Belki</b>
<b>Feed intake</b>	<b>Aniden düşer</b>	<b>Dalgalı</b>

**Rumen florası**

**gram (+) pozitif**

**gram (-) hakim**