



Important nutritional diseases in horses

PROF.DR.

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- 1. Laminitis
(Founder)**
- 2. Sancı (Colic)**
- 3. Azoturia**

LAMINITIS (= FOUNDER)

- ★ This disease is inflammation of the soft layer of the foot.
- ★ It can be seen as acute and chronic. Laminitis is usually localized in the forelimbs.

★ ETIOLOGY:

- 1) Washing hot animals with very cold water,
- 2) ***** Giving grain feeds excessively and without measure,
- 3) Damage to the sole of the foot as a result of working on hard floors
- 4) With infectious diseases such as pneumonia, metritis and retention of the placenta, colitis occurs, followed by peritonitis, laminitis occurs.

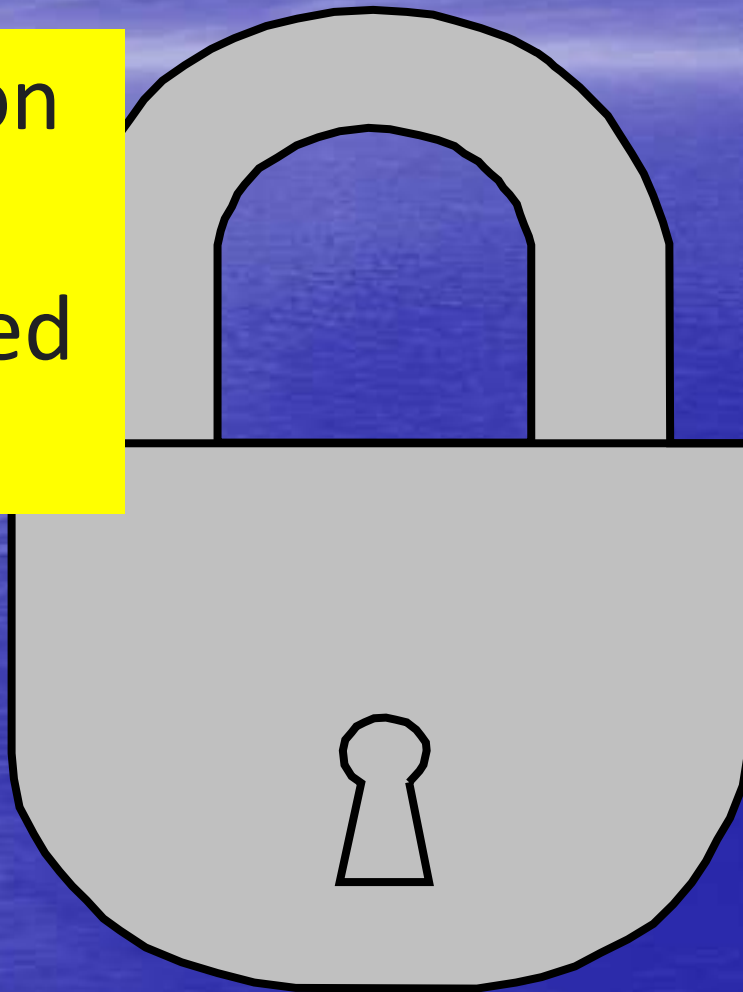
LAMINITIS (= FOUNDER =ARPALAMA)

- **Etiyoloji**

- 5) Uzun süreli taşınma
- 6) Aşırı canlı ağırlık veya düzensiz canlı ağırlık artışı
- 7) Hyperadrenocortism
- 8) Hypothyroidism
- 9) Glucocorticoid türü ilaçların kullanılması
- 10) Böbrek rahatsızlıklarında
- 11) İmmun sistemdeki düzensizliklerde

Key point in laminitis:

Consumption of high cellulose feed

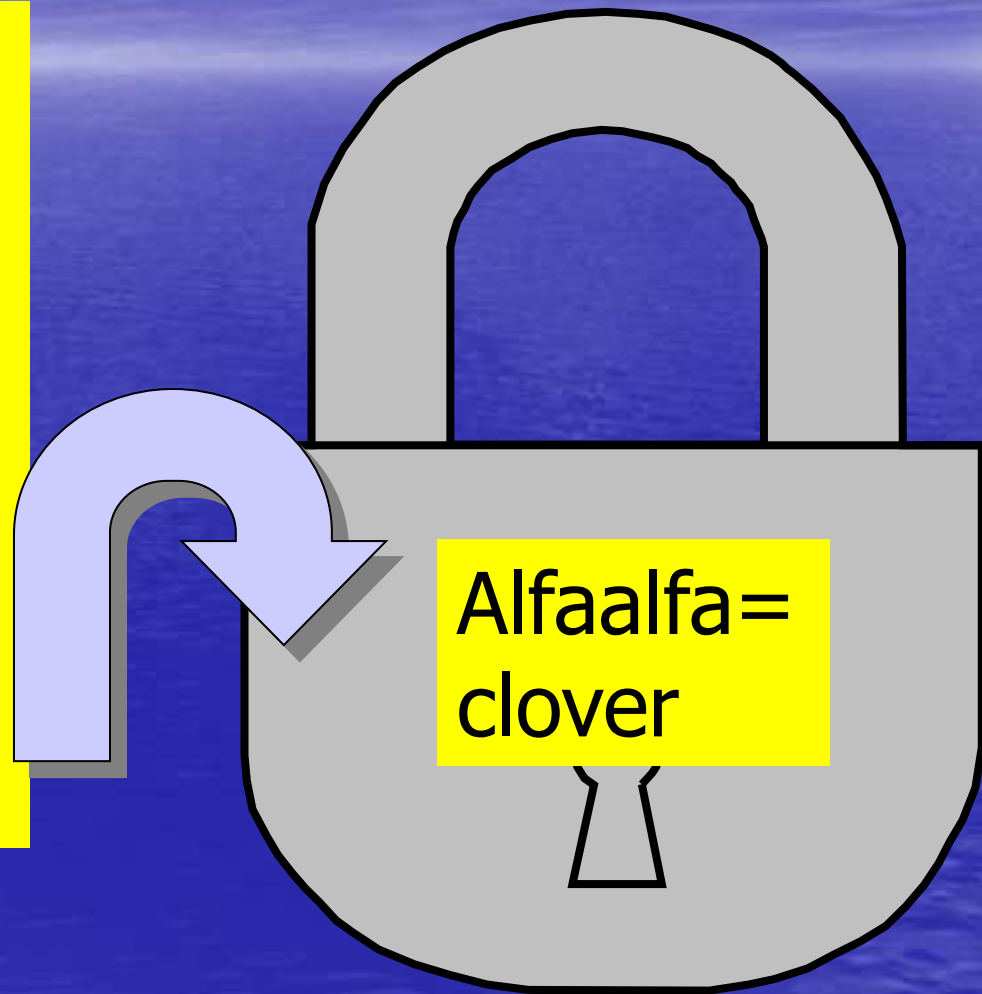


Consumption of water-soluble carbohydrates (sugar and fructans) and starch



Laminitiste kilit nokta:

High in cellulose
High quality protein
Water-soluble K.hydrate
(sugar and fructan) and
low starch level Mineral
(especially Ca) balanced



Why does sugar
and fructan
increase the
formation of
laminitis?

Excessive grain consumption

Sugar Fructan and starch consumption increases

Fructans play an active role in the formation of laminitis.


Horses do not have the enzyme that breaks down fructans in the small intestine

Sugar and starch ferment in a short time

Acidity increases in the last part of the digestive system

ACIDOPHILIC ENVIRONMENT

Bacteria involved in
the digestion of
cellulose die



It causes damage to the cell wall in the digestive system and the formation of toxications in the blood.

LAMINITIS (= FOUNDER)

- **CLINICAL SYMPTOMS:**

Laminitis is inflammation of the soft layer of the foot. General and local symptoms are seen in acute laminitis. Generally, the animal will experience a fever, increased breathing, increased heart and pulse rate, in some cases painful spasms and profuse sweating. There is also tremendous pain in all four feet. If only the forelimbs are affected, the animal tries to stretch its legs forward to relieve its weight.

LAMINITIS (= FOUNDER)

- **CLINICAL SYMPTOMS:**

In local manifestations, the affected feet are warm. Pulsation of the arteries on the foot is high. A very severe pain is formed when a slight pressure is created. These symptoms usually appear within 10 days. There is serum infiltration between the toenail and the soft layer. With the progression of the disease, the separation of the sensitive lamina from its wall, the enlargement of the nail wall, the anterior surface of the wall becomes evident by taking an oblique shape and it takes a concave image, and the nail falls off by separating from the lamina wall.

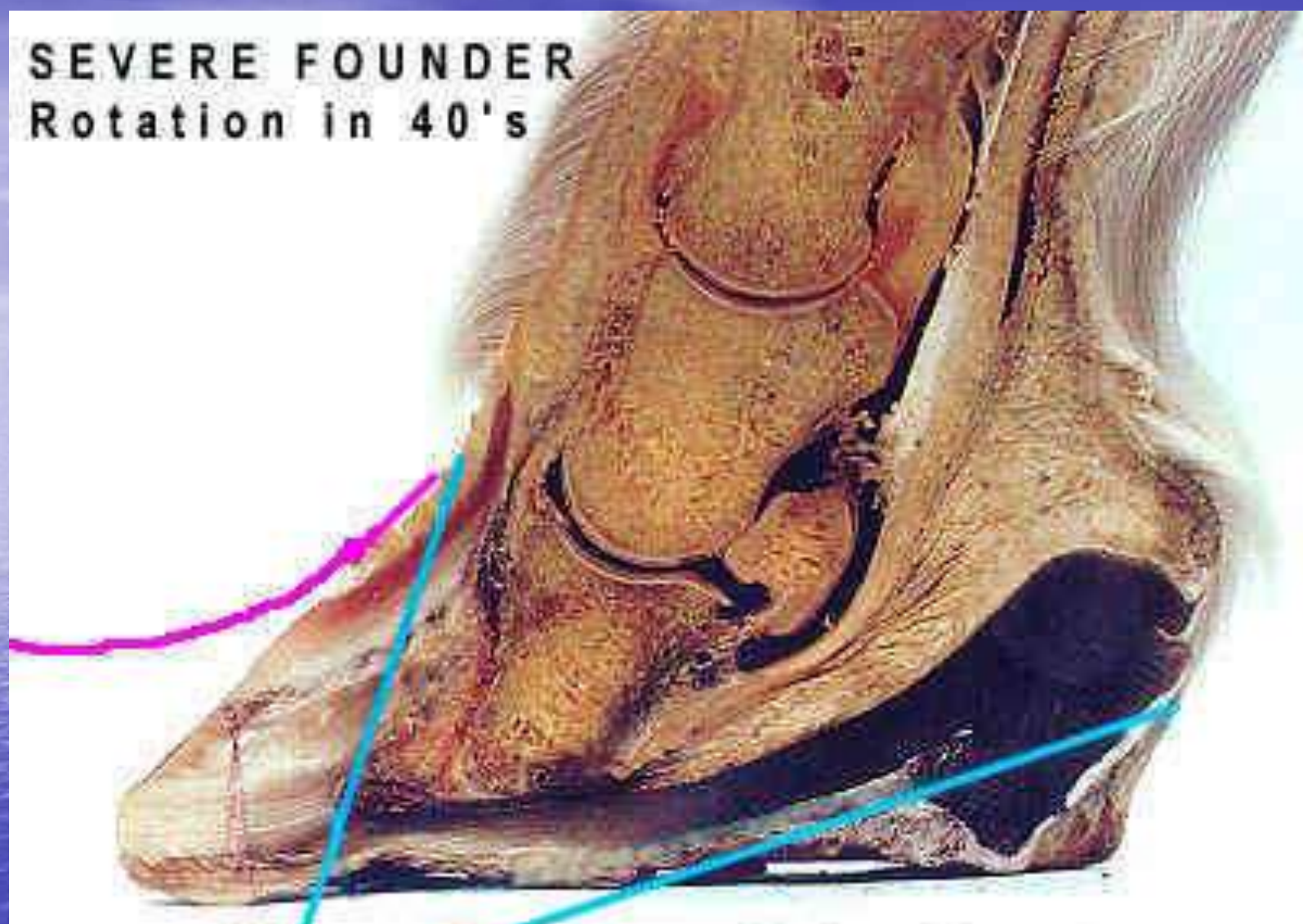


Figure 11.10





SEVERE FOUNDER
Rotation in 40's



— Where hoof would be if not rasped

— Where hoof would be if not foundered



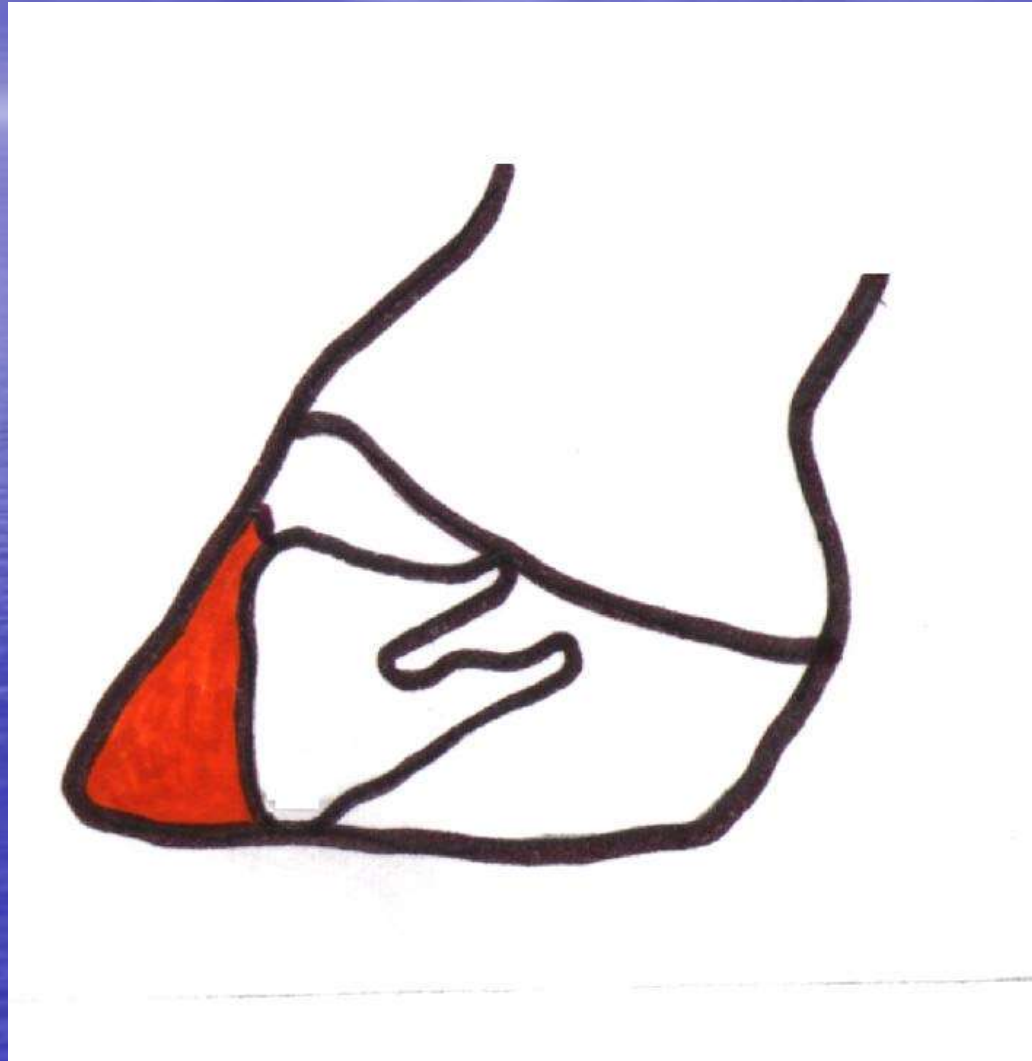


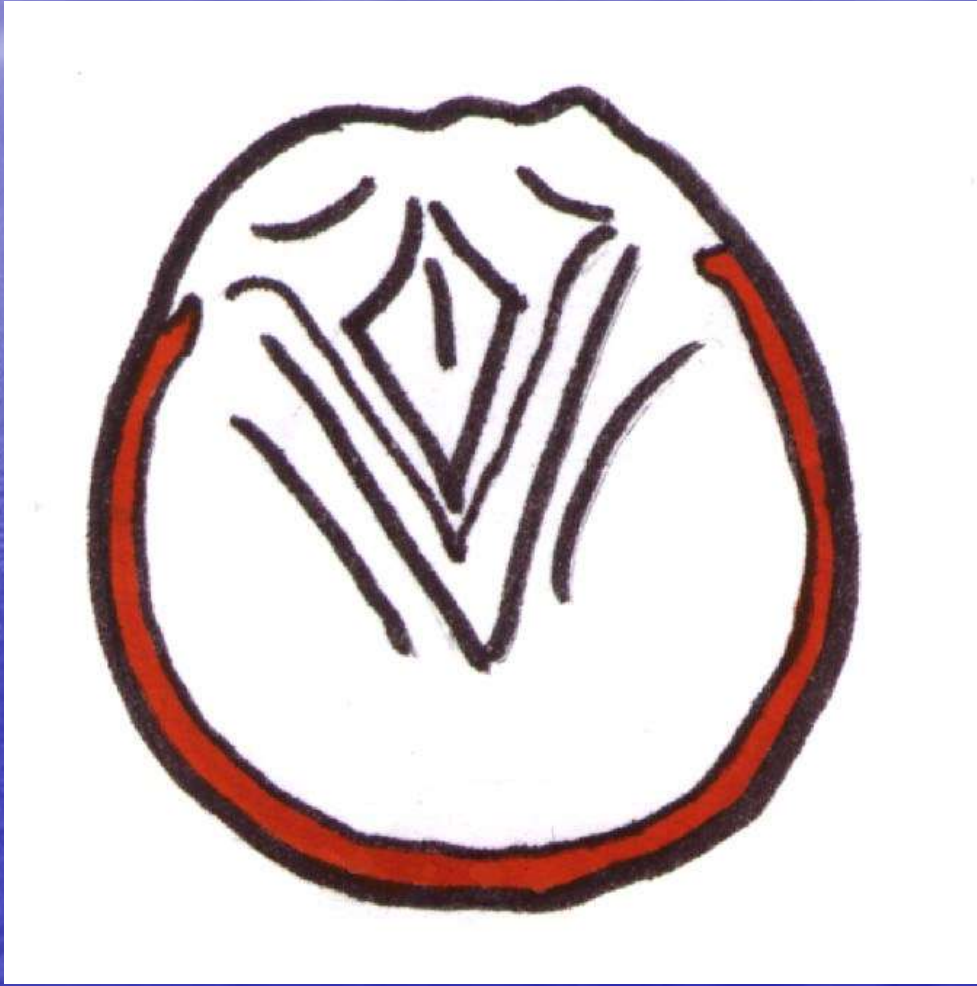
Where new wall will be sucked back as coffin bone resuspended by stronger new laminae.

Where stronger new laminae start.

Foundered mare after about 3 months of Strasser trims.







LAMINITIS (= FOUNDER)

- **Diagnosis:**

Symptoms such as deterioration in the general condition of the animal, fever in the nails, increased pulse in the foot arteries, pain in the foot, and reluctance to move help the diagnosis of the disease. Laminitis can be confused with tetanus, azoturia, rupture of the stomach and bladder, and colic. However, there is **NO LOCAL PAIN** in the feet in any of these diseases.

LAMINITIS (= FOUNDER)

Treatment: **Acute laminitis;**

1. cold compress
2. Antihistaminic solutions are applied.
3. Autohemotherapy can be performed by giving 120 ml of IM blood 3 times a day.
4. Phenylbutazone preparations can be used due to its vascular effect.

In chronic laminitis;

1. Distortion movement of the nail is prevented.
2. The nail that grows too long is cut from the tip of the foot and removed.
3. Shoeing is done to protect the flattened sole. For this purpose a wide screen is used to protect the sole of the foot.



What to do to prevent the formation of laminitis ?

It is necessary to give a live yeast culture to improve cellulose digestion and increase the number of cellulolytic bacteria.

It is necessary to avoid giving the first cut grass in the spring and autumn.

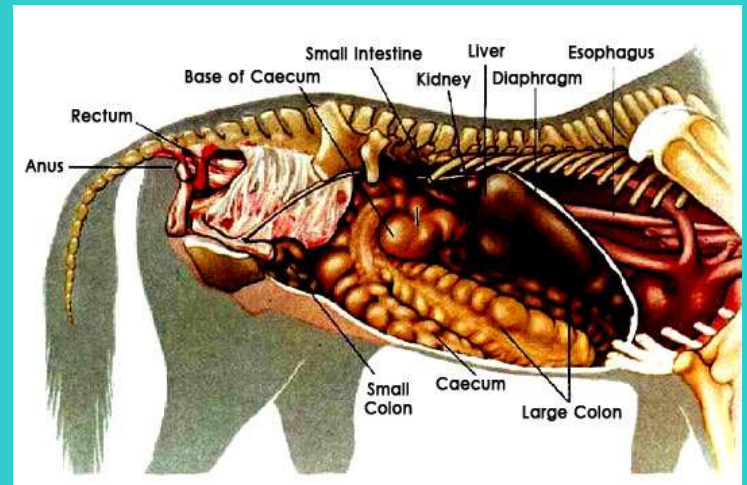
It is necessary to avoid cereal grain feeds and their products containing high starch.

COLIC

This disease is abdominal pain caused by contraction of the muscles in the small intestine.

80% of pain occurs in the first hours.

Pain is usually characterized by elevated blood lactate levels.



COLIC

The horse bites its tail, beats the ground, there is loss of appetite.

In advanced cases, the horse throws itself from the ground to the ground. Due to the pressure on the bladder, the horse urinates frequently.



COLIC

In severe colic, the heart rate is over 100 beats per minute. Similarly, it increases from 12-24 to 72 in breathing. Body temperature drops a little, diarrhea, undigested grains in the stool, bad breath odor and nasal contents are seen.

SANCI (KOLIK)

- **Treatment;**
 1. chloralhydrate
 2. 2-6 lt paraffin liquid on a 500 kg horse once or twice a day
 3. Linseed oil 0.5-1 lt It can be used
 4. in painkillers and sedatives.



Factors that accelerate the formation of pain

overfeeding

Stress irregular work,

overfeeding non-working horses or sudden feed changes

in these animals Running horses with full stomachs,

Sudden starting of horses Giving cold water

immediately to horses that have just arrived from work

Sancı oluşumunu hızlandıran faktörler

- Consumption of poor quality,
- Consuming muddy and soiled roughage
- Lack of regular dental care
- The water given to the animal is not clean
- Consuming large amounts of green feed

AZOTURIA

This disease is more common in racehorses and overworked small horses.

This disease, which is suddenly characterized by paralysis of the hind limbs, occurs when animals that have been resting for a while are suddenly started to work.

AZOTURIA

Azoturia usually occurs within the first hour of exercise, especially in the first fifteen minutes. In general, azoturia is defined as a myopathy that causes some mental disorders with the accumulation of lactic acid in the tissues and blood as a result of glycolysis.

AZOTURIA

- **Clinical diagnosis:**

If the disease is localized only on the forelimbs, the animal stands. Heart rate goes up to 90. With the progression of the disease, the heartbeat accelerates and the animal completely loses its strength. Fever is usually normal. Affected muscles are stiff, insensitive, and swollen. Urination is difficult and over time, the urine accumulated with the catheter should be taken out. URINARY IS RED BROWN DUE TO MYOGLOBIN EXTRACTION

Azoturia

– Treatment:

Allowing the horse to rest Chloral hydrate for nervous and restless horses laxative preparations

On the other hand, fast-acting purgatives, preparations such as arecholine and physostigmine should never be used.

Vit E, selenium and cortisone application are useful for the prevention of the disease.

It is also recommended to add 2% sodium bicarbonate to their rations.