

Hey Neighbor

For The Love Of Horses

By Frank J. Buchman

Horses Die From Lockjaw

Lockjaw can lead to a horrible death for horses.

While it can usually be prevented and is treatable if diagnosed early, lockjaw is reported annually throughout the country, with a number of cases ending tragically with death of the horse.

"Lockjaw, also known as tetanus, is caused by a

horse's contact with toxins from the bacteria *Clostridium tetani*," defined Dr. Mark Crisman, Virginia Tech College of Veterinary Medicine.

"The disease usually occurs as a result of infective spores from the bacteria deposited deep in a penetrating wound such as occurs from a nail puncture in the

horse's hoof," Crisman said.

First clinical signs that a horse has lockjaw are general muscle stiffness accompanied by muscle tremors. "This is followed by restricted jaw movements, thus the term lockjaw, along with prolapse of the third eyelid and an unsteady, stumbling gait."

Additionally, the horse's

tail may be held out stiffly, and the horse may have a very anxious or alert expression. It will have difficulty eating and have excessive drooling from the mouth.

"As the disease progresses, the horse will be unable to eat and will assume a 'sawhorse' type stance," Crisman said.

Specifically, the tetanus bacteria requires an anaerobic (without oxygen) environment for growth as provided by the deep puncture wound.

"Toxins are released from the bacteria and enter the nervous system, and the result is a state of constant muscle spasticity (spasm) leading to the clinical signs of lockjaw," he said.

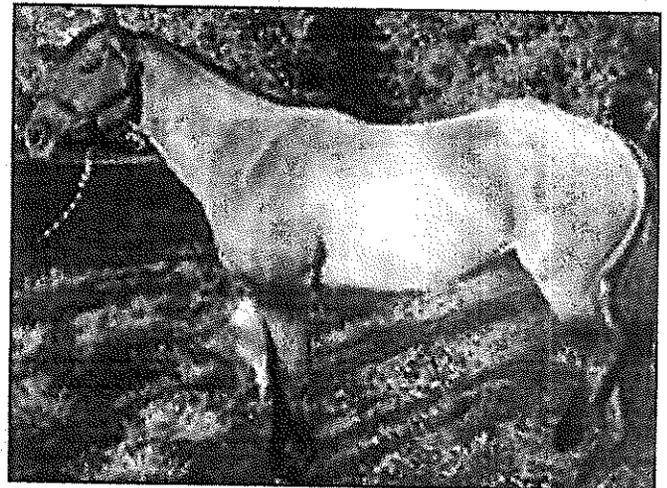
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nosed early, treatment includes aggressive antibiotic therapy with penicillin or tetracycline," Crisman recommended.

Goals of therapy include: elimination of the bacteria from the wound, neutralization of the toxin, and control of the neuromuscular degeneration.

"Once the disease is diagnosed, the course of the disease is generally five to 10 days, although some cases may linger for several weeks," Crisman acknowledged.

Treatment is often not effective, with some reports of horse mortality averaging 80 percent.

For certain, without aggressive therapy, most horses will die, according to the veterinarian. "Death usually occurs from asphyxiation due to paralysis of the respiratory muscles," he added.

Tetanus can usually be prevented with an annual vaccination with tetanus toxoid.

"This vaccination is very effective," Crisman contended. "For horses that have not been previously vaccinated, a primary dose is administered, and a second dose one month later,

followed by an annual booster."

Mares should be vaccinated during the last six weeks of pregnancy, and the foals vaccinated at five to eight weeks of age.

While the disease can occur in horses of all breeds and ages, it will be diagnosed in horses with no history of vaccination.

Horses are the most sensitive of all species to tetanus, with the possible exception being man.

Although tetanus occurs worldwide, there are some areas, such as the northern Rocky Mountain section, where the organism is rarely found in the soil and tetanus is almost unknown.

In general, the occurrence of tetanus in the soil, and the incidence of tetanus in horses and people is higher in the warmer parts of the various continents.

While many horse owners do follow a tetanus vaccination program, each year there are horse lock-jaw cases reported, with many of those ending in death.

"Use of the vaccine is strongly encouraged for all horses," Crisman emphasized.

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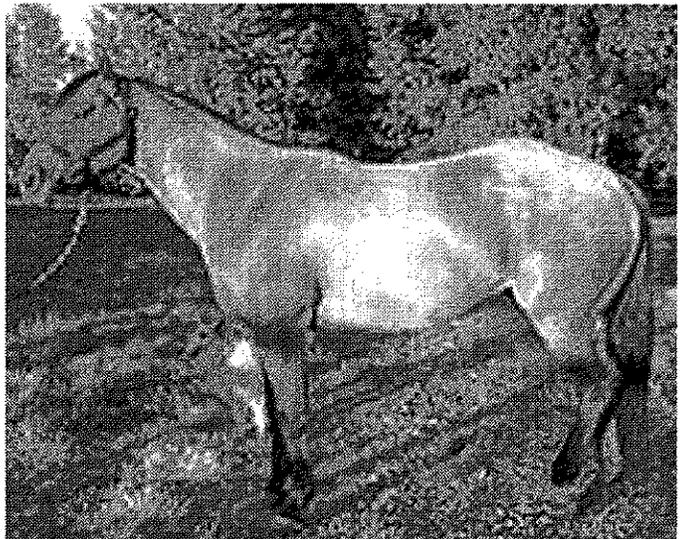
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