University of Idaho
College of Agriculture
Cooperative Extension Service
Agricultural Experiment Station

Current Information Series No. 286
April 1975

Navicular Disease in Horses

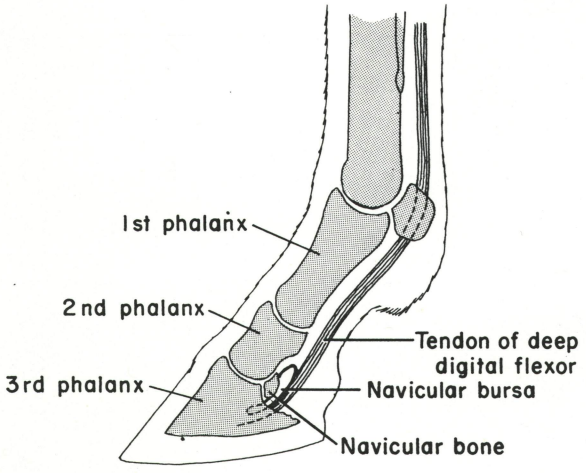

Figure 1

Navicular disease begins as an inflammation of the bursa between the deep digital flexor tendon and the navicular bone of the foot. Figure 1.

While the joint surfaces of the phalanges may not be affected, the tendon adjacent to the bursa may be progressively destroyed with eventual rupture. This tendon is very important since it flexes the foot; that is, turns the toe down and back. Horses with faulty conformation of the forelimb are more likely to develop navicular disease. Racing, cutting and roping horses have a higher incidence of navicular disease than pleasure horses. It is one of the most common causes of lameness in horses and usually affects both fore feet. However, one foot may have more extensive damage than the other.

When the foot is placed upon the ground the weight forces the navicular bone back against the tendon. Horses with small feet have less area over which to distribute concussion and weight, therefore, more pressure is placed upon the navicular bone.

Signs of Navicular Disease

While walking, the horse tends to place his weight on the toe to avoid placing weight on the heel area which contains the inflamed navicular bone and bursa. Since the horse doesn't place weight on the heel, it takes him longer to stop his stride. While standing he tends to shift his weight continuously. In this way he can relieve pressure, thus pain, on the heel areas. Since he tends to place his weight on the toes during movement, the gait is very rough and it sometimes appears as if he is lame in the shoulder. The horse is often lame after work, but the lameness may disappear with rest. Because there may be comparably poor circulation in the foot, the heels and adjacent hoof may become smaller and contract. Figure 2

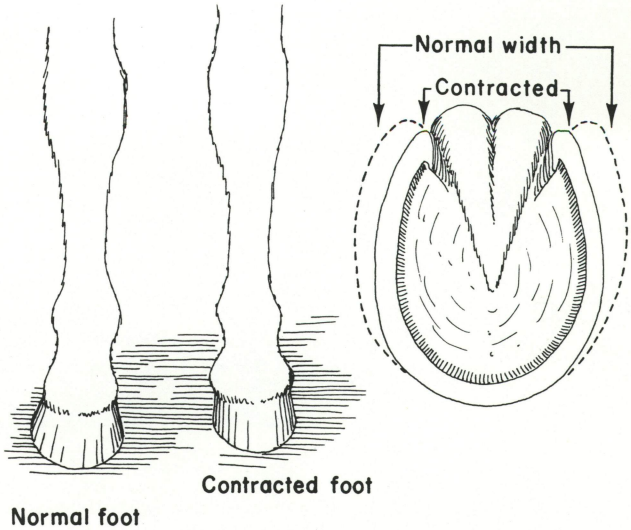

Figure 2

Diagnosis

A veterinarian should be contacted when signs of lameness are noticed. Most veterinarians use hoof testers as an aid in the diagnosis of this condition. Applying pressure with hoof testers over the frog area produces pain and the horse flinches if the disease is present. Figure 3. The hindfeet should be tested with hoof testers to compare the reaction with that of the forefeet.

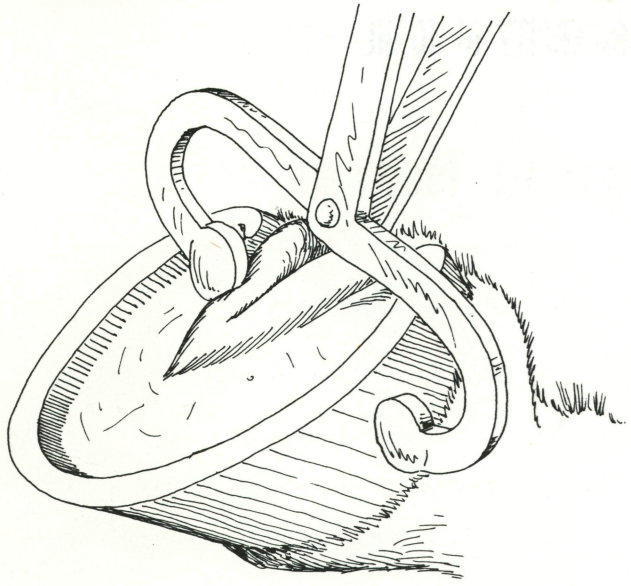

Figure 3

An anesthetic which blocks the nerve supply to the affected area will relieve the pain for a short period of time. In this way the veterinarian can determine whether or not navicular disease exists. If the horse was lame prior to the injection, and walks normally after the injection, it may be assumed that the lameness is located in the navicular area.

Treatment

Corrective shoeing is helpful. A bar placed across the heels aids in relieving the pressure on the heels. Rasping the quarters of the hoof wall or cutting grooves in the wall aids in relieving foot contraction. Rubber frog supports (properly applied) may be a superior method of restoring frog pressure. Cutting the nerves which supply the navicular area is helpful also, but may bring about many complications.

While the outlook is unfavorable in most cases, the various methods of treatment discussed above may provide enough relief so that the horse will be of useful service for an indefinite period.

This publication was written by Robert C. McClure, Gerald D. Kirk and Phillip D. Garrett, Department of Veterinary Anatomy, School of Veterinary Medicine, University of Missouri. Printed in Idaho with permission of the University of Missouri, Columbia Extension Division.

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, James L. Graves, Director of Cooperative Extension Service, University of Idaho, Moscow, Idaho 83843. We offer our programs and facilities to all people without regard to race, creed, color, sex, or national origin.

6M 4-75