Stringhalt in a Horse

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Stringhalt in a Horse. On Oct. 5, 1943, a 9-year-old, brown, riding horse was brought to the veterinary clinic with history and symptoms of stringhalt. When the patient moved at any natural gait, the left hind leg was flexed so that the hoof closely approximated the body. This condition may be defined as an involuntary flexing, affecting one or both posterior limbs. The limb is lifted with excessive suddenness and beyond normal flexion. Numerous investigators in their study of this myoclonic condition have advanced various theories in regard to the possible etiology. These factors are based on the various findings of the individual investigators. Some of the most logical ones are: an abnormal development of the spine of the tibia, some pathological condition of the nerves and muscles of the limb, a pathological condition of the great sciatic nerve such as a chronic inflammation or infiltration with blood, straightness of the hocks, contraction of the peroneus muscle, localized sclerosis of the spinal cord, and inflammation of the hock or stifle joint. Of all these probably the most logical one is some irregularity in the nervous mechanism of the involved limb.

Types of Stringhalt

Various authorities have given different classifications of stringhalt. Probably the most logical classification is into idiopathic and symptomatic forms. The idiopathic form includes those cases in which there is no visible cause. The symptomatic form includes those cases in which the cause can be detected.

The defect is easy to detect and the only difficulty met is the possibility that it might be absent at the time of examination. The excessive flexing and the bringing of the foot to the ground with great force may be demonstrated while trotting and sometimes while walking. It tends to persist in spite of work, but at times it will disappear. Generally it returns with rest. Occasionally the symptoms are only manifested when the patient is turned in small circles or is moved from side to side.

The treatment indicated for this condition is a tenotomy of the lateral digital extensor on the lateral surface of the metatarsal bone at a point below the lower limit of the sheath of the tendon and above the point at which the tendon joins the tendon of the long extensor. The operative area is 3 to 4 cm. in length, measuring upward from the point of union of the two tendons. Local anesthesia is obtained by the infiltration of the surrounding tissues with a 2 per cent procaine hydrochloride solution. The operation may be performed on quiet animals in a standing position by the use of local anesthesia and a twitch,
or the patient may be restrained on the ground or on a table in a lateral recumbent position with the affected leg uppermost. The operative area is prepared by shaving and disinfecting the skin. The thumb is used to displace the tendon backward and at the same time tense the skin along the anterior border of the tendon. Next with a sharp-pointed knife, an incision is made about ¼ in. long through the skin and fascia. The incision is made parallel to the tendon and the knife is advanced between the deep fascia of the tendon and the bone. After a tract is established by rocking the handle, the knife is removed and a blunt pointed tenotome is inserted. The cutting edge of the tenotome is turned toward the tendon which is divided by cutting toward the skin while the foot is flexed. The wound is closed by one suture or by using collodion to cover it.

**Controversial Question**

Some clinicians think the operation is more efficient when a portion of the tendon is removed. Others believe that removing a portion of the tendon is of no advantage and delays healing. In this type of surgery the incision is enlarged and by the use of a forceps the tendon is drawn out through the incision. This is accomplished by having the hoof extended. Then with either a scissors or knife a portion of the tendon is removed.

This method of surgery brings relief if the condition is due to the spasmodic contraction of the lateral digital extensor muscle. However, only about 30 per cent of the stringhalt cases are due to this condition. This surgical procedure is not practiced when it is known that the condition is the result of some definite cause such as spavin, gonitis, or cracked heels. Some veterinarians do a tibial neurectomy for this condition, but as a whole this has not been very satisfactory.

Early healing results if the instruments, operator's hands and dressings are sterile. Following the operation the patient should be rested for 10-14 days. After this, the patient may be turned loose in a box stall or exercised slowly on soft ground.

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**X-ray Diagnosis of Foreign Body.**

On the 21st of October a five-year-old sorrel saddle mare was admitted to the Stange Memorial Clinic. This horse had a history of having kicked through a window during an attack of colic about 5 weeks previously. At this time the patient had suffered several small lacerations on the medial side of the right rear leg about 3 inches above the fetlock. The owner reported that there had been quite profuse bleeding from these lacerations; it had seemed to him that a rather large artery had been cut.

The horse had been allowed to stand in the stall for 5 weeks following the injury. The Sunday previous to bringing the animal to the clinic the owner took her out for a short ride. After having gone only a short distance the horse became severely lame on the right rear leg.

Upon arriving at the clinic there was some swelling and she showed moderate sensitiveness of the affected fetlock, but no lameness. It was noticed, however, that while standing in the stall she put very little weight on the leg.

Two x-ray pictures were taken of the affected part, one a lateral view and one a posterior view. Nothing of any significance was found. The following day 2 more pictures were taken, both at an oblique angle. These latter 2 pictures showed a foreign body about 3 inches above and posterior to the proximal sesamoidian bones. Upon close observation it seemed that there were 2 small objects, one superimposed upon the other.

**Preoperative Procedure**

The following morning the area was shaved and a mercury bichloride pack, 1:1000, was bandaged over the area. The next morning the horse was given 1 ounce of chloral hydrate with the use of a stomach tube and placed on the operating table. The operative area was infiltrated with 2 percent procaine solution. The x-ray plate was superimposed on the leg and the location of the foreign object found in that way. A small incision was then made over the indicated area. Imbedded in the tissues about ⅜ inch beneath the skin were found 2 pieces of glass, one rectangular.