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Severed Tendons in Equine

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ment, the cow was much improved. Its temperature had returned to normal, the swelling no longer increased, and the appetite was returning. The sulfathiazole sodium sesquihydrate treatment was repeated. Sulfathiazole, 300 gr., was given per orum and repeated daily for 2 more days. The swelling slowly receded. Milk production in the non-infected quarters rose from the amount obtained by stripping to 10 lbs. per day.

The success of the sulfathiazole sodium sesquihydrate treatment was again demonstrated a few days later in a similar case in which the disease was farther advanced before the veterinarian was called. The cow did not succumb, but the quarter most affected sloughed away. The udder had been damaged to such an extent that milk production was unprofitable so the animal was fattened for beef.

—R. E. Norton, '44

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Severed Tendons in Equine. A rather common farm accident with a horse-drawn mower, brought a young roan Belgian mare to the Stange Memorial Clinic on July 20, 1943, with severed superficial and deep flexor tendons of the left hind leg. The gaping wound was inflicted between the middle and distal third of the metatarsus. The horse placed considerable weight on the leg, allowing the fetlock to touch the ground at times.

It is usually not difficult to diagnose this condition in the equine. In the majority of cases a definite history which involves an accident with farm implements is known. The severity and the location of the cut tendons primarily determine the prognosis.

A very marked degree of dorsal flexion of the fetlock joint indicates a rupture or division of the flexor perforans (deep digital flexor). The dorsal flexion is such as to allow the fetlock to reach the ground, causing the toe to be turned up so as to expose the sole.

When only the suspensory ligament is

divided the fetlock drops just slightly and the solar surface of the foot remains flat on the ground. When the flexor perforatus (superficial digital flexor) is ruptured there is a marked dropping of the fetlock sufficient to cause the toe to turn slightly upward. The fact remains, however, that a rupture of either ligament is followed by approximately the same symptoms and the two conditions may be confused.

Symptoms

The grave condition resulting from a rupture of all three tendinous structures posterior to the metatarsal bone is marked by the dangling position taken by the phalanges. The animal appears to stand on the distal end of the metatarsal bone while the phalanges extend inertly to the anterior.

A division of the digital extensor tendons anterior to the cannon bone is principally manifested by dragging of the toe and various degrees of inability to properly extend the phalanges while in motion, especially in placing the foot forward prior to the supporting phase of the stride. No abnormal position of the phalanges is noted while the limb supports weight as in quiet standing.

Anatomy

The mechanism of the hock and stifle joints is such that they are unable to move or flex independently. The peroneus tertius or the tendinous portion of the flexor metatarsi is an inextensible cord which unites the stifle and the hock joint in such a way that movement of one joint produces movement of the other. The tendon arises in the extensor fossa of the femur in common with the long extensor muscle and is inserted by three slips into the hock and metatarsus. A rupture of this tendon produces a marked flexion of the stifle joint and excessive extension of the hock. This produces a lack of harmony in the function of both joints and the uncertain movements of the limb may give the impression of a broken bone. The absence

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A.V.M.A. Humane Act Award

In 1877, there was founded an organization called the American Humane Society. It was a federation of societies and individuals whose purpose was to protect children, to prevent cruelty to animals, and in general to promote humane education. In the beginning the project faced many great problems which have since been met by Federal and State governments, through legislation such as the various transportation laws governing the shipment of livestock.

Many small animals and birds have been benefited by the Society through the establishment of sanctuaries and protective organizations. Likewise, animal rescue leagues for the collection and disposition of homeless and unlicensed dogs and cats have been formed.

The American Veterinary Medical Association has become actively interested in such humane work. It believes that humane principles should be impressed upon all American youth, and toward this end has established a Humane Act Award to be presented annually according to the following qualifications. Boys and girls not beyond 18 years of age are eligible. The award will be given in recognition of some outstanding humane act or work accomplished by the boy or girl. It need not be a rescue. The key note is—"work in behalf of kindness to animals."

The award will be in the form of a significant scroll, framed for hanging. It will

be presented by a representative of the Board of Governors of the American Veterinary Association in the district where the winner lives. It is planned that the presentation ceremonies will be attended by local humane societies, local veterinarians, groups such as Boy Scouts, Girl Scouts, Camp Fire Girls, and Future Farmers of America. In this way, the event and its significance will be properly publicized.

The plan for the nominations is as follows: Each group previously mentioned is entitled to make one nomination, as is each veterinary college and member of the American Veterinary Medical Association. When the nomination is made, it should be accompanied by an explanatory letter supporting the nomination.

The American Veterinary Medical Association committee planning this award is: Chairman, Dr. W. A. Young, of the Chicago Anti-Cruelty Society; Dr. E. F. Schroeder, of the Massachusetts Society for the Prevention of Cruelty to Animals; and Dr. S. T. Michael, of the San Francisco Society for the Prevention of Cruelty to Animals.

All nominations for consideration should be sent to the American Veterinary Medical Association office, 600 South Michigan Avenue, Chicago, Illinois. Nominations to be considered for this year's award must be in the A. V. M. A. office not later than April 30, 1944.

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of fracture is shown when the limb can still support weight.

The complementary tendon producing the joint harmony is the superficial digital flexor. It consists almost entirely of a strong tendon arising in the supra-condy-

loid fossa of the femur and inserting on the tuber calcis and the first and second phalanges. It acts to flex the digit and extend the hock joint. A rupture of the tendon in regions below the hock would produce the symptoms described above and in addition would allow the hock to drop and become more flexed. A rupture of the tendon above the hock would re-

sult in a severe supporting leg lameness. In this case the harmony between the stifle and hock joints would be absent and the leg would appear as if it were too long.

Treatment

In treating the patient an attempt was made to support a part of the animal's weight by means of a sling. This would facilitate closer apposition of the severed structures by a slight flexion of the digit, but the animal would not tolerate the device. After cleaning and shaving the area, a sulfanilamide pack was firmly bandaged in place and reinforced with muslin bandages. A prophylactic dose of tetanus antitoxin was administered subcutaneously. Examination of the bandages the following day revealed that considerable synovial fluid had exuded from the wound.

A blacksmith was engaged to place on the foot a shoe provided with a metal bar extending upward from the toe and parallel to the metatarsus. This metal bar

was well padded with cotton and felt. After bandaging the wound, the metatarsus was firmly drawn to the padded bar by means of a wide leather sling with straps and buckles. The patient was closely confined to further immobilize the affected structures.

Granulation tissue was quite evident by the tenth day, but the wound exudate and the flow of synovial fluid continued several weeks. It was necessary to remove some excessive granulation surgically at that time. The temperature and pulse remained normal during the entire period.

Apposition Incomplete

The patient was discharged Sept. 5, 1943, with the wound apparently healed but the angle of the fetlock indicated that the tendinous structures were not in apposition. The mare undoubtedly may serve as a breeding individual in the future.

—M. H. Westerfeldt, Fall '43

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