



Laminitis

Laminitis is a condition which affects all ages and breeds of horses world wide. Also known as "founder" or "fever in the feet," laminitis cause the death of countless numbers of animals each year while at the same time severely debilitating many more.

Without going into exhausting detail, laminitis can be explained as a shunting of blood away from the tissues within the horse's foot through a network of small blood vessels. Decreased blood flow results in tissue death and swelling which in turn creates a downward pressure on the coffin bone. As the pressure increased within the hoof, the coffin bone begins to rotate. In more severe cases the coffin bone will be driven out through the bottom on the sole. The aim of the treatment therefore, is to minimize the degree of rotation.

Horses suffering with laminitis will demonstrate a variety of clinical signs. Typically the animal is depressed, has a loss of appetite and is reluctant to move. The hind feet are carried up farther forward to help take more weight off the forefeet which are extended forward. In more severe cases the animal will refuse to stand. Laminitic horses when walked, tend to have a shortened gait and will quickly replace their foot once it has been lifted. These animals have been described as 'walking on egg shells'. In most cases heat will be apparent in the hoof particularly at the coronary band and a strong digital pulse may be visible. The animal's heart rate, as well as their core body temperature are in most instances, elevated. In the most severe case, a clear discharge may be seen oozing from the junction of the coronary band and the hoof wall. In most instances laminitis occurs in two or more feet although it can occur in a single foot.

In cases of chronic laminitis where an animal has experienced multiple bouts of founder the shape of the hoof becomes altered and takes on a dished and elongated appearance and bands or rings of irregular horn growth may be visible.

Laminitis can occur on its own or in conjunction with other disease processes. There are however, some common circumstances which lead to founder that are seen more often than others. Grass founder usually occurs in the spring when pastures are lush and all too often occurs in the pony breeds (especially Welsh and Shetland ponies). Pastures that are primarily composed of alfalfa or clover (both legumes) are more likely to cause the condition. This is something to keep in mind in our area where so many pastures tend to be seeded with alfalfa.

A grain overload is another common cause of founder. In this case excess grain in the large bowel ferments resulting in the production of toxins which pass into the animals blood stream. These toxins directly affect the blood circulation in the horses feet (shunting blood away) resulting in a Laminitic crisis.

Laminitis will occur in some mares after foaling, especially in the heavy breeds such as the Clydes and Belgians. This occurs when part or all of the placenta is retained within the uterus. These placental remnants allow for bacterial growth and toxin



Tavistock Veterinarians - Equine Newsletter

production which in turn set off a chain of events which trigger the shunting of blood mechanism.

Some other situations that may result in an animal foundering include the ingestion of large amounts of cold water by an overheated animal (cool them down before allowing them free choice of water), concussion to the feet from hard fast work on a hard surface (unconditioned animals will be at a higher risk due to the thin hoof walls and soles), following viral respiratory infection, after the administration of steroids, as a post surgical complication (especially colic surgery) and with kidney disease.