

Equine Grass Sickness

Whenever we are called by a concerned owner to see a horse or pony that is either showing signs of colic or is dull and off colour, there are a multitude of possible causes to think about on the drive to see the patient. Unfortunately for any vet working in this part of the country, one of the conditions that must always be watched for in these situations is Equine Grass Sickness, especially during spring and summer months.

Although grass sickness was first recognised as a condition over 100 years ago it is still not known exactly what causes it. It is a disease that effects the nervous system of the horse, in particular the autonomous nervous system which is responsible for the subconscious functions of the body such as gut movement, regulation of the sweat glands and heart rate. Currently research is suggesting that a toxin produced by the bacterium *clostridium botulinum* may be responsible for the dysfunction of this part of the nervous system but it is yet to be proven.

When the causative agent takes hold the first signs noticed are usually dullness, reluctance or inability to eat and sometimes colic. Eating and swallowing are actions that are second nature to us but actually involve a complex set of subconscious reflex movements. When grass sickness starts to affect the nerves that regulate these movements the horse starts to show problems with eating, sometimes rolling the food around the mouth or dropping it. We occasionally see horses appearing to play with their water – this is thought to be out of sheer frustration at being unable to swallow effectively. Colic tends to arise from distension of the stomach and intestines due to fluid and gas build up when failure of the normal contractions of the gut prevents it being moved through. More subtle symptoms include patchy sweating over the neck and flanks, fine muscle tremors, a droopy appearance of the eyelids and a condition known as *rhinitis sicca* which literally means “dry inflammation of the nose”. *Rhinitis sicca* is thought to be unique to grass sickness and appears as crusting inside the nose and can lead to noisy or laboured breathing.

Cases of grass sickness are usually classified into one of three groups – acute, subacute or chronic. It is a condition that both owners and vets dread seeing as for acute and subacute cases there is invariably no chance of treatment and patients suffering from it are usually put down on humane grounds within a couple of days of diagnosis, or sometimes within hours. Chronic cases generally don't show marked colic signs but tend to show dramatic weight loss over the course of the first week or two. Some sufferers from chronic grass sickness can recover but treatment involves intensive nursing, hand feeding with palatable foods (one chronic case a few years ago would only eat hand fed cabbage!) and endless TLC. Persevering with treatment of a chronic case can be very rewarding, but is never a decision to be taken lightly as a large number of chronic cases do end with the same tragic outcome as acute cases. Having to make the decision to part with a beloved horse or pony is always immensely difficult, but can be all the more painful after spending weeks of nursing that came to no avail.

One of the most frustrating things about grass sickness is that it appears to strike at random. Some areas are known to have a higher incidence of the disease but

sometimes a horse can have been on the same pasture for several years and then contract it, seemingly from nowhere. The only way to get good protection from it is to never allow your horse to eat grass, but permanently stabling your horse is generally not a very attractive proposition for either you or your horse! Having said that there are things that can be done that lower the risk. Minimising all or any of the following may help: movement between premises, changing the type and quantity of feed, disturbing the soil in the pasture and overuse of certain worming products. In addition the following factors appear to help protect against grass sickness – cograzing with ruminants, regular grass cutting, hand removal of droppings and provision of supplementary forage feed (in order to reduce intake of grass).

The Animal Health Trust in Newmarket are currently carrying out more research into the disease and there a possibility for a vaccine trial at some point in the future. Hopefully in the coming years the cause will be confirmed and subsequently our ability to protect horse and ponies from the disease may become as routine as preventing diseases like tetanus is now.

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