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COMPASSION, CARE AND CLINICAL EXCELLENCE
On the cover this Summer are Emma Dobson (15) and her pony Tilly (22). Emma has owned Tilly for the past 5 years. They have been practising at home over Emma’s new jumps ready to get out to some local dressage and showjumping competitions.

Please email equine@paragonvet.com if you have any topic suggestions for either the newsletter or Facebook page.

**STAFF NEWS**

Selina Squarotti will be joining us as an equine vet at the start of August. She will be graduating from The Royal Dick Veterinary School in Edinburgh earlier in the summer.

Selina originally from Italy has always been interested in equine medicine, particularly endocrinopathies and lameness.

In her free time she enjoys hiking, skiing and horse riding.

We look forward to Selina joining us and are sure that she will be a great addition to our team.

Charlotte Fisher is probably best known as one of our Large Animal vets. She has a keen equine interest and has been getting out and about on some equine calls to help out the team during the busiest season.

Charlotte enjoys riding in her spare time and recently had a great time at the local Rawfoot farm ride with her horse Custard.
FURTHER THOUGHTS ON EQUINE HERPES VIRUSES (EHV)

Paul May - MRCVS BVMS

4 of the 5 main EHV cause respiratory disease but are also involved less commonly in diseases of the eye, abortion and neurological disease.

**EHV-1** - this causes a nasal discharge, enlarged nymph nodes and fever, however it can progress to cause abortion and neurological disease., which has been widely publicised in recent months.

**EHV-4** - this is possibly one of the most widespread causes of viral respiratory disease globally and may rarely go on to cause abortion.

**EHV-2 and 5** - their initial infection often goes unnoticed and there is evidence that they can go into a carrier state. 50% of horses may meet these viruses in their lifetime. **EHV-2** can cause changes in the eye, inflammation of the cornea and conjunctiva.

**EHV-3** - is a reproductive infection of the penis and vulva, which causes small blisters or spots which can be easily spread during natural cover.

In one survey, just over 30% of horses aged from 1-5 years with respiratory disease tested positive for EHV-1.

Vaccination is aimed at protecting against EHV-1 and 4 and after an appropriate course can reduce the severity and spread of respiratory disease. It can also reduce the risk of abortion but is not completely protective.

One of the criticisms of vaccinating during the current heightened awareness of EHV has focused on not vaccinating in the presence of the virus. The evidence is that we will often not know if the viruses are present and that should not put us off using the vaccine in apparently healthy animals.
SWEET ITCH

Euan Hammersley - BSc MRCVS BVMS

Sweet itch, also known as Culicoides Hypersensitivity, is a skin disease caused by an allergic reaction to midge bites. Affected horses and ponies are sensitive to the irritants present within the midge saliva, which cause a localised irritation within the skin.

Pruritus is the technical term for itchiness. This describes the unpleasant sensation that leads horses to bite, scratch or rub at their skin. Sometimes the sensation is so strong that horses will cause severe damage to themselves or their environment, while in extreme cases, horses cannot tolerate tack on their skin, let alone a rider. Although poorly understood, pruritus is known to result from the stimulation of special nerve endings and receptors in the skin. In the horse, the main factors inducing itchy skin are ectoparasites (such as midges), allergies and some infections.

Ponies are generally more frequently affected by sweet itch. There is evidence that susceptibility to sweet itch is genetic, with evidence that the disease may be passed from one generation to the next with foals from an affected stallion or mare being more likely to develop the condition.

Symptoms - mild to severe itching and rubbing, usually along the mane, back and tail with loss of hair from the effected areas is the key sign of sweet itch. In severe cases, areas of sore, open, broken skin, which tends to bleed may be present. Due to the life cycle of midges and their need for temperatures to be above 4°C, sweet itch is most commonly seen in late spring, summer and early autumn.

Management - preventing susceptible horses from midge contact and biting is key. Regular application of insect repellents and use of fly sheets or rugs. Some people have success with the longer lasting pour on insect repellents like Deosect. It is a good idea to move affected horses to open, more exposed fields with a good breeze (midges are weak fliers and get blown away with a wind more than 4mph!) and keep affected horses and ponies well away from woodland and water - especially standing water, such as ponds.
Consideration should be given to stabling affected horses and ponies from about 4pm to 8am (i.e. dusk to dawn) when midges are at their worst, the use of electric fans and insect traps in stables can be useful.

It is hoped that in the relatively near future, vaccines may become available to make affected horses and ponies tolerant to the irritation. Currently a European Ringworm vaccine INSOL which has shown to be effective against midges is being used off license and with some encouraging results.

In severe cases, anti-inflammatory medication and topical treatments will be needed to combat the irritation. They may be beneficial to give short-term relief, although they are not always as effective as one might expect. Side-effects also need to be considered, especially with long term usage and therefore the key to treatment is to prevent contact with midges.

**LAMINITIS WATCH**

The return of the nice weather and the grass now coming through means we have to be extra vigilant about laminitis. If your horse or pony has previously suffered laminitis or is at higher risk either from being overweight or with a diagnosis of EMS it is even more important to be implementing management practices early to prevent a bout of laminitis occurring.

The "Laminitis" app can be a useful tool to help identify when the sugars in the grass are at their highest level in your area, this will vary in different regions.
EQUINE METABOLIC SYNDROME

Freya Wood - BVSC MRCVS

Equine Metabolic Syndrome (EMS) describes obesity and a predisposition to laminitis that affects horses and ponies. In particular Welsh, Dartmoor, Shetlands, Morgan, Arabian and Warmblood horses have been noted to be at a greater risk of EMS, but any breed can have EMS, particularly when there is an inappropriate diet.

With EMS there is a reduction in the normal response to insulin, described as insulin resistance. Insulin is the hormone that controls the glucose levels in the blood, and in horses with EMS this balance between insulin and glucose is disrupted.

EMS is often tested for alongside PPID (Cushing’s disease) as part of an “Endocrine Laminitis” panel, however, unlike Cushing’s disease, EMS typically affects younger and middle aged horses, and the classic signs are obesity and laminitis. The obesity can be generalised or localised, with fat collecting particularly over the crest, around the tailhead, behind the shoulder and around the eyes, however absence of obesity does not mean the horse doesn’t have EMS.

**Diagnosis** - suspicion of EMS is usually based on a horse being overweight and having a history of laminitis, however tests are required to confirm the diagnosis. A single blood sample taken after feeding indicates the current risk on the current diet. The “Karo test” requires a test meal of sugars (the Karo syrup) to be fed either by syringe or in a small amount of chaff. This simulates rich grazing and gives a worst case scenario should the horse be turned out onto rich grazing. Two blood samples are taken, one at 75 minutes after the syrup is fed and one 90 minutes after the syrup. This is looking for the change in the insulin.

**Managing EMS** - diagnosis of EMS means management changes should be implemented to enable weight loss. These management changes are changes to diet and exercise. This enables weight loss, increased fitness and improves the response of the body to insulin. Diet management must be strict and it must be monitored with all feed being weighed out to prevent over feeding. However, care must be taken when restricting diets as other problems can be created. We must also still ensure that salts, vitamins and minerals are provided in this diet by feeding a balancer.
Exercise must be done unless it is prevented by another issue such as lameness. If laminitis develops this requires treatment above management of the EMS, so this will restrict the exercise that the horse is able to do. Exercise that is canter and above is most effective, but any way exercise can be increased will be beneficial. The more variety you are able to include makes the process more fun for both owner and horse.

**Treatment** - there are drugs that can aid weight loss in EMS but this should never be used as a replacement for management changes. Drugs should only be used in addition to these changes. Metformin is a commonly used drug that helps reduce glucose absorption. Levothyroxine, a drug used for hypothyroidism, is also available as a treatment that can be used in cases that are weight-loss resistant by increasing the metabolic rate of the horse. It is however expensive so this often prevents it being used.

EMS can be a frustrating condition, but it is possible to manage even with the management changes alone. Monitoring the progress of the weight loss is an important part of identifying when further measures are required if no progress is being made but also to act as an encouragement to owners that they are making progress! Taking photographs periodically can really highlight the changes to the horse, as well as body condition scoring or using a weigh bridge or weigh tape to track the weight being lost.

Below is a particularly useful resource with ideas on how to implement these management changes for individual circumstances, and also on how to body condition score your horse.

[https://www.liverpool.ac.uk/equine/common-conditions/weight/](https://www.liverpool.ac.uk/equine/common-conditions/weight/)

Robin was diagnosed with EMS in August 2020 and his weight loss has been achieved using dietary management and exercise. Top photo May 2021 looking very slender, middle photo January 2021, weigh tape 396kg bottom photo August 2020, weigh tape 455kg.
**HORSE HEALTH PLAN**

Our new Horse Health Plan launched in March.

Like the Pet Health Club those wishing to join pay a monthly direct debit to spread the cost of annual preventative healthcare. Further details are listed in the flyer alongside.

Please speak to one of the Equine Team if you would like to discuss the Horse Health Plan further or if you would like to sign up.