



Ark Vet Centre

Equine Newsletter



September 2024



Welcome to the September newsletter, the wet weather has continued throughout this month and the summer show season has come to the end. We are starting to look ahead to autumn jobs as well as checking up on some of the older horses and ponies to ensure they are in the best condition possible going into the winter. This month we are continuing our discussion on muscle problems and moving onto PSSM.

PSSM

Polysaccharide storage myopathy results in an abnormal accumulation of glycogen, the form of sugar stored in muscle. This can cause episodes of muscle stiffness and pain after exercise, also known as “tying up” or exertional rhabdomyolysis. Affected horses may be reluctant to move and may display sweating, lameness, and muscle tremors. Clinical signs for all types of PSSM can range from a slight reluctance to go forward, or simply poor performance, up to full blown exertional rhabdomyolysis, or ‘tying-up’.

Two types of PSSM have been identified. A genetic mutation causes PSSM Type 1, The mutation causes muscle cells to produce glycogen continually. It is more commonly observed in Quarter Horses, related breeds such as Paints and Appaloosas, and draft breeds, although cases have been reported in more than 20 breeds.



PSSM type 2 also results in abnormal glycogen storage in muscle, but is they do not have a genetic mutation and the cause of PSSM type 2 remains unknown. Cases have been reported in warm-bloods and Arabs.

Type I PSSM can be diagnosed by a non-invasive blood or hair sample, while Type II will normally require a muscle biopsy.

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PSSM is a lifelong condition that will need ongoing management. Any horse that keeps tying up at exercise should have a PSSM test to rule the condition out.

Managing PSSM

Diet

Offer hay that is less than 12% in non-structural carbohydrates. NSC includes starch and water soluble carbohydrates (such as sugars). Fresh pasture and hay/haylage can contain significant amounts of WSC so its advised that hay is soaked and grazing muzzles are used when out on grass. Its also worth considering turning out overnight when sugars in the grass are usually lower.



Feeds high in starch, such as cereal grains or mixes containing cereal grains, are not recommended for horses prone to tying-up. If additional energy is needed in the diet to meet the energy requirements for work, then feeds high in fibre are beneficial, such as alfalfa, which is high in energy and low in starch. If further energy is required then vegetable oil can also be added to the diet.



Exercise

Regular exercise is important in horses that have PSSM or recurrently tie up, this should be daily and either by turnout and/or by riding or lunging. Try to avoid days with no exercise where possible. Regular exercise has shown to be extremely beneficial in reducing muscle damage. Prolonged periods of box rest should be avoided, particularly in horses that are very fit.

This is obviously different to those that have suddenly tied up with no previous history of tying up as these require rest until the muscle enzymes are normal.

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