

Drum Beat

PSSM a different perspective by Stephanie Heikkinen, DVM

HEAVEN CAN BE
FOUND IN THE
BEATH OF OUR
HORSES, AND THE
SOUNDS OF OUR
BARN.

The Problem of PSSM
There has been a lot of discussion about Polysaccharide Storage Myopathy (PSSM) in the gypsy horse world lately. This disease was known to work horses in the past as Monday morning disease due to the fact it usually happened on Monday after the horse had Sunday off and given a full grain ration. Other names for this disease are Exertional Rhabdomyolysis, azoturia or tying up the clinical signs of this disease are muscle cramping, reluctance to move, sweating, and stiffness. There appears to be two forms of this disease. One can be diagnosed by genetic testing (PSSM1) and the other can only be diagnosed by a muscle biopsy (PSSM2). This disease is very prevalent in certain breeds of horses. That being said certain breeds seem to have more severe clinical signs than others. It is believed that the Percheron breed has about 62% percent of the breed tests positive for PSSM1 (S. Valberg, DVM). However, the Quarter Horse (and breeds related to the Quarter Horse like Appaloosas and Paints) has only on average about 7% prevalence in those breeds but the symptoms seem more severe in these breeds than what we see in these drafts. That being said it seems like the English Drafts (Shires and Clydesdales) have avoided this gene. As Veterinarian and an owner of breeds of hors-

es that may have PSSM (either form), I think it is important to think about management of these horses. Most important is turnout and exercise. I have a pet peeve about horses kept in stalls. I understand that for peace of mind some people wish to keep their horses in at night but if that is the case I believe that no matter what the weather you should have them out the largest part of the day. I personally think the best situation is 24/7 turnout with access to a stall or run in. I even have my turnouts set up so the horses get their food at the opposite end of the water so they have to move the maximum distance during the day. Keeping horses exercised is also important, even if you can't ride, a light lunge session or even just making them move around their paddocks (think of it as free lunging). When starting these horses back into work, make sure that you work your horse up gradually to a full work schedule. Do not go out after giving them a month off and think you are going to go for a 2 hour ride.

Good quality roughage is just a good idea for all horses. Making sure horse have plenty of fiber throughout the day not only is good to prevent tying up but other equine issues like colic and ulcers. It also keeps them from getting bored. In the winter the fermentation of fiber keeps horses warmer. That being said certain hors-

es need more to keep the weight on and instead of carbohydrate rich grains think fat. I like rice bran, flax seed oil, coconut oil but even vegetable oil will do. You don't have to buy expensive low carb grain beet pulp (soaked), hay cubes, or hay pellets with oil would be just as good. Horses that are too fat may need grazing muzzles or slow feed hay bags. That being said if you have a fat horse that ties up, new thought says you might want to fast it for a bit before exercise. This is so his body wants to use the fat it has stored instead of trying to access the stored glycogen. You want to talk to your vet about this. When we are deciding on what to do with the information that Gypsy's are testing positive for this disease is to first figure out what the prevalence of the disease is in the breed. This can only be determined by random sampling. This being said the testing all has to be standardized and have quality control. Then we need to see if how severe the clinical signs are in this breed. The genetic testing is relatively new and there may be other genetic modifiers that make it more severe in some individuals over others. I think it would be a poor decision to castrate horses that are asymptomatic and have other desirable qualities before we know all the facts. Limiting the gene pool has never been a good idea for diversity. In the case of the Drums

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the fact that Clydesdales and Shires have a low to no prevalence of the genetic form of PSSM, means that the genetic diversity you get from these breeds will only strengthen the gene pool.

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The not so straight and narrow adventures of Horse Feathers Boon's Buckaroo.



I bred my very lovely F1 mare, Aurianna (Shire x Bruno) to Mariah's Boon. I was looking for an F2 or better, with height and not as heavy as Auri. Boon was the perfect choice. A lovely stallion with good movement. While I was putting in my order – a homozygous for Tobiano colt would do too. 351 days later, Auri presented us with a beautiful colt. Bay and white, blue eyed and a personality to die for. One problem...his left leg bowed sideways so that when he walked, his knee would literally go sideways and hit you in the leg. I kept thinking he was going to break his leg any moment. But he got around and never slowed down. He came by his name because he would just buck and cavort in place. No need to go anywhere, just go higher!

We couldn't wait too long to get his leg sorted. I waited until he was just over a week old to see if there was any improvement (none) and had our regular vet out for an evaluation. We took pictures and video and sent them up to the orthopaedic surgeon at the TX Equine Hospital. Diagnosis and prognosis were not good....he had a bowed cannon bone, just below the knee. It was surgery or euthanasia. Surgery it was. At the tender age of two weeks, I left the newly dubbed Buckaroo in the very capable hands of Dr. Honnas. A scary endeavor! And not one that the orthopaedic specialist was giving me much hope for (however....Dr. Honnas is usually very reserved in his prognosis, esp for an issue like Buck's.) Radiographs confirmed his suspicions and Buck had a periosteal stripping along with wearing a special shoe that had outside extensors on it. The thought behind the surgery was to actually promote bone growth – fill in the gap, as it were. The shoe was more mechanical: Get him standing with his legs apart and force his knee "in". Surgery went well and he was up and about, sporting a stunning purple bandage. His mum was very unhappy

with the whole "having to stay in the stall because my son is crazy" thing, but we managed to keep her happy and Buck occupied for his 3 week post op recuperation. He had to have his special shoe glued on twice more as he and his foot grew, which meant loading him and Auri into the trailer for the drive north. Buck is a well-travelled little fellow! When Buck was 8 months, I took him back to Dr. Honnas for a follow up. Much to my relief Buck was cleared as 'normal'. Normal? As in nothing wrong? Yep! A lovely straight cannon bone with only a slight calcified bump at the top. I cannot tell you what a relief it was to hear those words. Buck of course is castrated, so I never bothered to test him to see if I received my order for a homozygous tobiano colt. It's just good to know that Mr. Personality can go on to have a wonderful life, doing horsey "stuff". Buck is for sale and I've been very up front about his surgery. If he sells to a good home, great! If not, he is one I'll be happy to keep around! ~ Rebecca