A TALE OF TWO MOMMIES

It was the best of times. It soon became the worst of times. This spring, we eagerly awaited the arrival of our foal crop. An established broodmare was the first to foal with a beautiful colt that was carbon copy of the foal she produced last year. The rest of the foals were extraordinarily special: 1) a foal resulting from embryo transfer, our second successful attempt so we were quite excited; 2) a foal resulting from the use of frozen semen, the first foal to be sired by UVM Springfield since his death in 2014; and 3) the first foal out of our beautiful home-bred mare, HD Valhalla or Hallie as she was known in the barn. All mares foaled without incident. Hallie’s foal was particularly special with a unique face marking and being less than 75 pounds at birth, he soon donned the nickname, Peanut.

Hallie appeared to be content in her role as a mother and enjoyed the extra time she spent outdoors with the other broodmares. All was well until Hallie became colicky one evening while Hallie's bloodwork, ultrasounds and pre-operative evaluation pointed to a strangulation of some type, but the extent of the problem was not clear. The team pulled together quickly to get Hallie and Peanut ready to travel to Vermont Large Animal Clinic for what we were guessing would be colic surgery.

Hallie’s bloodwork, ultrasounds and pre-operative evaluation pointed to a strangulation of some type, but the extent of the problem was not clear. The team pulled together quickly to get Hallie and Peanut ready to travel to Vermont Large Animal Clinic for what we were guessing would be colic surgery.

LIPOMA — THE “BENIGN” TUMOR THAT ISN’T

In the “Tale of Two Mommies” article in this same issue of The Stable Sheet, Katie Ballard shares the story of how the orphaned foal, Peanut, and his nurse mare mother, Kimmy, come together. They are thriving as a pair and we’re excited breed Kimmy in 2017 for a foal of her own. We can’t help but be a little wistful about the loss of Peanut’s dam, HD Valhalla, as she was a sparkle in the barn and had only just begun her broodmare career.

One week after Hallie foaled, it was Velvet’s turn in the foal-watch stall. Caught on camera getting ready to give birth, the barn was quietly buzzing with excited people witnessing the arrival of the new foal. Just as the filly, Belle, was working on standing for the first time, Hallie began to show signs of colic in the stall across the aisle. The vet was called and arrived quickly, but Hallie’s pain level escalated so very fast! The team pulled together quickly to get Hallie and Peanut ready to travel to Vermont Large Animal Clinic for what we were guessing would be colic surgery.

See PEANUT, Page 2

See LIPOMA, Page 3
our summer students were watching another mare foal. The local vet was called and referred us immediately to the Vermont Large Animal Clinic (VLAC) in Milton, VT, where surgery could be performed if needed. At VLAC, they determined that Hallie’s colic was the result of a lipoma strangulating some of her intestines. The prognosis was poor for Hallie and ultimately we chose to have her euthanized. We had transported Peanut to VLAC with Hallie and the sight of the orphaned 84-pound foal alone in a big box stall was heartbreaking. There was no time to mourn the loss of the mare as we were faced with the challenges associated with the care of an orphaned one-week old foal. Acquiring mare milk replacer and implementing a two hour feeding schedule was the least of our worries. We had managed horses in the past that had been orphaned as foals and they were behaviorally very challenging to work with as adult horses since they had not been taught by their dam how to “behave like a horse”. In addition, we knew that with five summer interns, the instinct to coddle the undersized Peanut was going to be strong. Even though the intentions may be well-meaning, the outcome a few years from now would be a pushy, ill-mannered horse.

One of the vet’s at VLAC suggested the use of a nurse mare, however an initial search for a potential candidate was fruitless. Although VLAC had never attempted it, they had heard of using a protocol for inducing lactation in a non-lactating mare and subsequent adoption of a foal. Without any other options, we identified a Morgan mare, UVM Kimberly or Kimmy, who had recently been leased to Miner Institute as a potential broodmare. She had previously raised a foal and was selected because of her demeanor and interest in other foals on the farm. The protocol for induction of lactation was to administer 3 cc of progesterone/estrogen combination (150 mg progesterone and 10 mg estradiol) intramuscularly once per day for 7 days; and 10 cc (500 mg) Sulpiride intramuscularly twice per day for 10 days. Sulpiride is an antipsychotic drug used in humans that has a helpful side-effect of increasing plasma levels of prolactin, a protein hormone that enables mammals to produce milk. Peanut was placed in the stall next to Kimmy, where they could see each other and touch through the stall bars. He trained to drinking the milk replacer from a pail easily and was fed milk replacer every two hours by a dedicated staff with many volunteers outside our horse barn staff taking shifts to help out. By Day 4 of the protocol, Kimmy started to produce small amounts of milk that we were able to obtain 5 minutes after giving her ¼ cc of oxytocin (to promote milk letdown) using a hand-held, manual milking pump. Once Kimmy started to produce milk, we milked her 5 times per day to increase her production levels. Each milking was measured and as the sample size increased, we began analyzing the milk composition to compare to the other lactating mares in our herd.

On Day 7 of the protocol, we determined that although Kimmy wasn’t producing enough milk to sustain Peanut’s growth, she was making enough to satisfy his urges to nurse and we could supplement additional milk replacer to meet his nutritional needs. The final, most important, step of the process was for Kimmy to accept Peanut as her own foal. On a daily basis, we had taken Peanut to a scale to monitor his weight. Each day, Kimmy became more and more anxious each time he left the stall next to her. This was very encouraging and indicated she was bonding to him. On the day of the adoption, Kimmy was particularly frantic when he left to be weighed. With veterinary supervision nearby in case we needed to mildly sedate her, we administered a shot of prostaglandin, which in horses will cause mild contractions of the uterus and which we hoped would simulate birth and encourage her bonding with the foal. Five minutes after the contractions started, we brought Peanut into her stall. Kimmy nickered and Peanut successfully began nursing. As you can imagine, there was a collective sigh of relief, and yes, a few joyful tears were shed. We continued to supplement his diet with milk at much longer intervals and eventually transitioned him to milk replacer pellets. We have monitored the growth of all the foals on a weekly basis to compare Peanut’s growth rates to his counterparts. We have also been sampling milk from all four of our lactating mares on a weekly basis and will be able to evaluate milk composition from an induced lactation compared to regular lactations. Look for an update with this data in a future Stable Sheet.

Providing a nurse mare for an orphan foal should be considered a viable option for horse breeders. Peanut won the lottery…one week after losing his dam, he was blessed with another mare to care for him and teach him how to be a horse. I am optimistic that Our Tale of Two Mommies (apologies to Charles Dickens) ends with a season of light and spring of hope.

—Katie Ballard
ballard@whminer.com
In the North Country, there are only a couple horse rescues and they do a great job, but like most rescues, they are generally filled to capacity. They get calls frequently from people about equines in need of help for a variety of reasons, but they can’t fix everything.

What we do know about the North Country is that we’re good at taking care of our neighbors if asked to! In that spirit, the North Country Hay Bank was established and is now recognized as a 501c3 charitable organization. The mission of the NCHB is to provide large animal owners facing financial hardship with temporary hay and feed assistance. The program is designed to keep animals at home, with the people who love them and provide some education — both to the people that are seeking immediate help and through other sponsored programming.

Though the NCHB originally looked to just feed assistance, it was quickly determined that other health services could be useful. To that end, the group will evaluate requests for assistance as part of a Healthy Horse Initiative and gelding incentives. The social stigma of asking for help can be a powerful deterrent, but the NCHB is part of a solution as it can help keep animals safe and healthy while a long-term plan is formed for the animals and the people who care for them.

For more information about this newly-formed organization, contact the Executive Director, Christine Bush at northcountryhaybank@gmail.com, check them out on Facebook and watch for the website launch.

LIPOMA, Continued from Page 1

couldn’t be known without operating. We decided that it was worth the chance and went forward with surgery knowing that we could make a more educated decision about her prognosis once the veterinarians could see her intestines.

The news wasn’t good. Strangulating lipoma was the cause of Hallie’s colic and had cut off circulation to a very large portion of the small intestine. Hallie was a tough mare, but the odds of surviving surgery, recovery and returning to anything that looked like a normal horse life were all so small, that we made the decision to let her go.

This wasn’t our first tour with strangulating lipomas, as we lost a broodmare almost 20 years ago to the same colic. A pedunculated lipoma is a benign (meaning non-cancerous) fatty tumor that forms on a pedicle, or a stalk, that connects to the mesentery. The approximately 60 feet of small intestine are organized in the horse’s belly by a strong, but thin membrane that connects it all and holds the blood vessels that go to and from the intestine; that’s the mesentery. I’ve described the pedunculated lipoma as a “ tether ball”, and these apparently form more often in older, overweight horses, but not always. There is no diagnostic for these lipomas until something goes wrong.

A lipoma becomes strangulating when the cord wraps itself tightly around a section of small intestine and becomes too snug to unwrap itself. Hallie’s presentation was textbook- a very rapid onset of colic symptoms that didn’t show any improvement with a dose of the anti-inflammatory medication, banamine. Postsurgical prognosis for strangulating lipoma colic is based upon how much intestine was compromised and for how long. Hallie’s hadn’t been for very long, but the section of intestine that would need to be removed was tremendous.

Body functions like breathing, heartbeats, and digestion are all ruled by the autonomic nervous system and happen without the horse having to “think” about it (it works the same in humans). There is a function of the small intestine that isn’t fully understood where it communicates with the brain to make food, or digesta by the time it reaches the small intestine, move along. One of the biggest complications post-surgical surgery is the condition called “ileus” where the intestine just doesn’t kick in to move food again. We lost our first mare, Peterbarb Top Delite, to ileus five days after she’d come through surgery with flying colors.

There really isn’t a good moral to this story, other than the fact that at Miner, we’d spoken in general terms in the past about which horses would be colic surgery candidates and which ones might not be based to the high financial costs and possible outcomes. We had agreed in the past that Hallie was one that we’d take to surgery due to her talents and pedigree, so we got her to surgery as fast as we could have. We take some comfort in knowing that we did all we could to save her life, but also give thanks to the powers-that-be that Velvet foaled that night, as she likely saved Peanut’s life and Hallie from suffering more. Mysterious ways, I guess!

— Karen Lassell
lassell@whminer.com
THE PARASITE PROBLEM

As the spring semester came to an end, I became aware of an issue for all animal owners in my class Pathology and Parasitology: drug-resistant parasites. Growing up on a farm and throughout the horse community, there was no shortage of suggestions on deworming programs and schedules; we dewormed every two months to hopefully rid our animals of infection. However, this one-size-fits-all deworming program has been found to be the cause of a vast parasite resistance to drugs. Hopefully by learning more about better parasite management, we’ll better be able to keep our animals healthy and possibly save money at the same time.

The Cause and Conditions
Parasites are organisms that live on or in another living organism. Large animals, such as goats, sheep, cows and horses that live in the barn and go out to pasture, are perfectly healthy with a small number of parasites present as a matter of normal life. An overburden of parasites steals nutrients from the animal, and can also cause damage to the inner organs. An unhealthy hair coat, poor body condition score, and pruritus (excessive itching) leading to possible hair loss are all sure signs on the exterior as well as poor attitude and decreased growth rates. Progressive coughing in foals, without signs of mucus discharge, is likely due to the migratory path of intestinal worms making their way from the respiratory tract to the GI tract. In addition, parasites can be the culprit for intestinal obstruction, nutrient absorption insufficiencies, damage to the intestinal epithelium, and possibly lead to colic. Parasites harvesting a large quantity of blood for their own survival cause anemia-related illnesses: decreased performance, lethargy, and continuous decrease in health and appearance.

The Problem
Old habits die hard. The common practice of rotational deworming every 8 weeks with different drugs persists today. This method was once thought to prevent infection of parasites because of this frequency, but this has been proven not only false, but a new problem has emerged from this preexisting principle: parasite resistance. Dewormers fall into three main classes of drugs: benzimidazoles, macrocyclic lactones, and pyrantels; all are sold under a variety of brand names. According to recent research, up to 40% of farms in the southern part of the United States have small strongyles resistant to dewormers and other studies have shown similar problems in the northeast.

The Best Thing to Do
A comprehensive, targeted protocol is needed on farms to keep parasite populations under control and to keep the drugs we have effective: collecting a manure sample and completing a fecal exam. There are multiple methods to determine the exact species of parasites affecting the horse and the severity of infection. To determine the number of strongyle type eggs (the most common family of intestinal parasites), a McMaster’s test is done to count the total number of eggs in a sample expressed as “eggs per gram- EPG”. If the EPG is greater than 500, parasites are a problem in that horse; the larger the number, the more serious the issue. Based on the EPG result, deworm with a select dewormer paste and check EPG two weeks later to see if your choice of product has been effective. Fecal testing is the most effective way to deworm your furry four legged companion, but it has often been labor intensive for owner and vet alike, and it sometimes takes days to get the analysis back. In comparison to the money that could be wasted on dewormers, an unhealthy, unhappy horse, and risk of resistance to a dewormer, the fecal test is definitely worth it, but has often been forgone due to the barriers to getting easy results.

The New Tool in Town
With the realization that the lack of convenient results keeps horse owners from using Fecal Egg Counts to manage deworming programs, the company MEP Equine Solutions, pioneered by assistant professor at Gluck University in Kentucky, Martin Nielsen, DVM, PhD, Dipl. EVPC, ACVM, Paul Slusarewicz, PhD, an adjunct professor at Gluck, and businessmen Eric Hauck, struck out in early 2014 to develop an “on farm” FEC test that can give results in five minutes. The new exam uses Signal Hybridization or “SIGHT” technology- a protein containing reagent that binds to the parasite ova in a freshly collected sample, causing the ova to glow a fluorescent green. Using the “Parasight” smartphone app, the number of eggs is determined, as well as the species of parasite. The product will be available to veterinarians in March of 2017, according to a Zoetis company representative, but the price has not yet been specified. The simplicity this tool will bring to the management of parasites is exciting! More information about this product is at theparasightsystem.com.

Knowing the signs of parasites and using proper methods to examine and treat the problem aids in the current health of your horse. Targeted deworming with the right drug class, at the right times, and on the right horses, will ensure the long term health of all horses. As more research is done, and better information collected, we can better aid in the detection and prevention of equine issues such as intestinal parasites.

— Morgan Hulbert
SUNY Delhi
Veterinary Science Technology
Recent research published in the Journal of Equine Veterinary Science looked at the effects of steaming and soaking hay on the prevalence of bacteria and mould and the effect on nutrient content. This article (“The Effect of Steaming and Soaking on the Respirable Particle, Bacteria, Mould, and Nutrient Content in Hay for Horses” by Meriel J.S. Moore-Colyer, Jessica L.E. Taylor, and Rebecca James) caught my attention as we were dealing with a horse at Miner who was plagued by a stable cough. We started with all the traditionally-recommended management strategies – as much turnout as possible (hard to do with a stallion!); cleaning, bedding and sweeping the barn only when the horse is NOT inside; and wetting down the horse’s hay – and were not successful.

We worked with our veterinarian and have been successfully managing the cough with Trihist granules and an inhaled steroid (Flovent) delivered through an Equine Aeromask. While this seems to be an effective treatment for our horse, Flovent is hard on the budget! Is there a better, less expensive way?

The study conducted three experiments in an effort to examine the effect of different treatments on airborne respirable particles (ARP), microbial, and nutrient content of hay for horses. In the first trial, bales were examined for ARP levels after being treated five different ways: dry (control bales); a 10-minute water soak; steamed in a wheelie bin (a homemade hay steamer utilizing a lidded plastic garbage can on wheels and a wallpaper steamer); steamed in the commercially-available Haygain 600 machine; or steamed with a kettle of boiling water. The second experiment measured microbial contamination for samples that were dry, steamed in a wheelie bin, or steamed in a Haygain 600. Lastly, nutrient content was measured for dry and Haygain steamed bales.

Results showed that steaming in a Haygain reduced ARP and microbial contamination by 99% and reduced only the levels of water soluble carbohydrates by 18.3%. The wheelie bin steamer and kettle water reduced ARP by 88%. It was determined that the Haygain steamer provided the optimum reduction of ARP and microbial contamination while conserving mineral and protein content.

— Kathryn Domijan
2016 Summer Experience in Equine Management student & UVM Senior

While the Haygain is optimum and I’m certain the product would withstand much use and abuse, the price tag of the Haygain HG-One, which steams hay for one horse per feeding, is $850 plus $95 for shipping. It appears from a quick search, that a homemade wheelie bin steamer could be assembled for under $200 and a trip to a local hardware store. We’ll likely give building one of these a try over the winter and will report our results!

— Karen Lassell, Equine Manager
The NYS Horse Council serves as the umbrella organization that unites New York’s diverse horse community into one unified voice to promote and protect the interests of New York State’s horse industry. For more information visit www.nyshc.org

New York State Horse Council, Inc
2017 Membership Form
Memberships are for the calendar year Jan. 1-Dec. 31

Please Print Legibly

Name of Member #1 ____________________________________________  [ ] Renewal  [ ] New Membership

Name of Member #2 (if Family membership) ______________________________________________

Club/Business/Farm Name ____________________________________________

Mailing Address ________________________________________________

City____________________ State____ Zip Code______ County________________________

Phone (_____) ___________ E-Mail ________________________________

Website __________________________ Volunteer Availability/Interests ________________________________

Please check the NYSHC Chapter you wish to join. A portion of your dues is transferred to that chapter for their activities.
   ____________________________ General Membership (no chapter affiliation)
   ____________________________ Putnam County
   ____________________________ Westchester County
   ____________________________ Cattaraugus/Chautauqua Counties
   ____________________________ Sullivan County
   ____________________________ Western NY (Erie/Niagara Counties)
   ____________________________ Orange County
   ____________________________ Ulster County

Please check age of Primary Member for Vintage Equestrian Program records
   [ ] Under 21  [ ] 21-29  [ ] 30-49  [ ] 50-62  [ ] 63+

Memberships with Insurance: *Only the Individual and Family memberships include $1,000,000 liability policy
   * [ ] Individual with Insurance $55
   * [ ] Family membership with Insurance $75 (2 adults & children up to age 18)
   * [ ] Life membership, first year $500 includes insurance 1st yr. * [ ] Subsequent years, insurance only $20

Memberships without Insurance
   * [ ] Individual without insurance $35
   * [ ] Family membership without insurance $55
   * [ ] Youth – (thru age 20) without insurance $10

*Parent’s signature for youth membership ________________________________________________

For the memberships below we are offering a web link or advertisement on our website.
Please check which you want. Insurance is not available with these.
   [ ] Commercial/Business no insurance, includes web link or advertisement $75
   [ ] Association/Club/Farm no insurance, includes web link or advertisement $75

* All memberships include one vote at the General Meeting
* All memberships include one newsletter from NYSHC quarterly either in hardcopy or by e-mail.

[ ] Check newsletter delivery E-MAIL [ ] HARD COPY (snail mail)

Make check payable to: New York State Horse Council Note: There will be a $25 charge for checks returned for NSF
NYSHC is a 501(c)(3) non-profit organization registered with the NYS Attorney General Charities Bureau

Mail this completed form and check to:

Membership Chair  Katherine Rice  Phone: (518) 727-0650
Address  5 Rice Road  E-mail: NYSHC.kcourt@gmail.com
City, State, Zip  Nassau NY 12123

Questions:

The William H. Miner Agricultural Research Institute Stable Sheet  October 2016 — 6
Autumn is one of the nicest times of year to get out of the arena and enjoy our horses — no bugs, beautiful scenery, no pressure to be getting ready for the next show — make walks in the woods that much more pleasant. With the fall comes hunting season and our two worlds can collide with devastating results. The rural nature of the North Country often has horses living close to woods, farm fields, and country roads; all areas frequented by hunters. Even though we know that good hunters ALWAYS identify their targets, not all hunters are good and even the good ones can make a mistake.

Miner Institute allows hunting during certain hours for employees on the “Back 40”, so we avoid riding during those times mostly to make sure we don’t interfere with the hunters; heaven help the horse person that keeps someone from getting the Big Buck prize! Hunters at Miner are safe and careful, but non-Miner hunters might accidentally end up on farm property so we try to follow a few guidelines. During hunting season, we only trail ride during the bright light of day and avoid dawn and dusk. We always wear blaze orange vests for visibility.

There are lots of products and methods to help “fool-proof” your horses on pasture as well. Painting or flagging your fence with blaze orange can help a hunter identify where “nature” ends and horse pasture begins. There are lots of blaze orange products that are made with breakaway features that horses can wear in a pasture as well- “vests”, tail bags, bell boots, halters, full sheets, and even the joking, but not really joking, using an orange grease marker to write “HORSE” on your horse’s sides!

— Karen Lassell
lassell@whminer.com

HD Galway getting ready for his first on-farm hunting season trail ride a few years ago.

CONGRATS TO NEW HEART’S DELIGHT MORGAN OWNERS!

HD Mexico (Legacy’s Viking x UVM Valkyrie) and Jessica Hoffman of Plattsburgh, NY have begun the next chapter of “Meant-To-Be.” Jess knew and admired both of “Maya’s” parents before Maya was born, so it just seemed natural to make this smart, pretty mare her own.

HD Kingston (Canon x Sugarlane Dominique) This big, fun yearling gelding has a bright future with Kim Brow of South Berwick, ME.

Visit http://whminer.org/equine/sales-list.php to learn about Miner Morgans available for sale!
Sugarlane Dominique (Courage of Equinox x Sugarlane Masquerade) is a 2001 broodmare extraordinaire! She’s produced many foals for us by several different stallions and is currently bred to Townshend Rob The Wave for an early June 2017 foal. Easy breeder, excellent mother and nice to be around, but “Nique” is the low mare on the totem pole in our herd-style of management. While she does just fine and we look out for her carefully, she would likely appreciate being part of a smaller barn with more individualized care than what we do here at Miner. She’s offered for sale reluctantly since we just love her babies and the current in utero foal is much anticipated! Nique was born the year that Courage died and although he’s still available through frozen semen, daughters of this great stallion are getting harder to come by. $3000 this fall and you can get to know her over the winter while you prep for the new foal! Check out the Miner Morgan sales list (http://whminer.org/equine/sales-list.php) for more photos of Nique’s offspring.

Learn more about the Miner Morgans at www.whminer.org/equine.html