If You Can't Stand the Heat, Get Out of the Barn

When to Consider Ovary Removal in Female Mules

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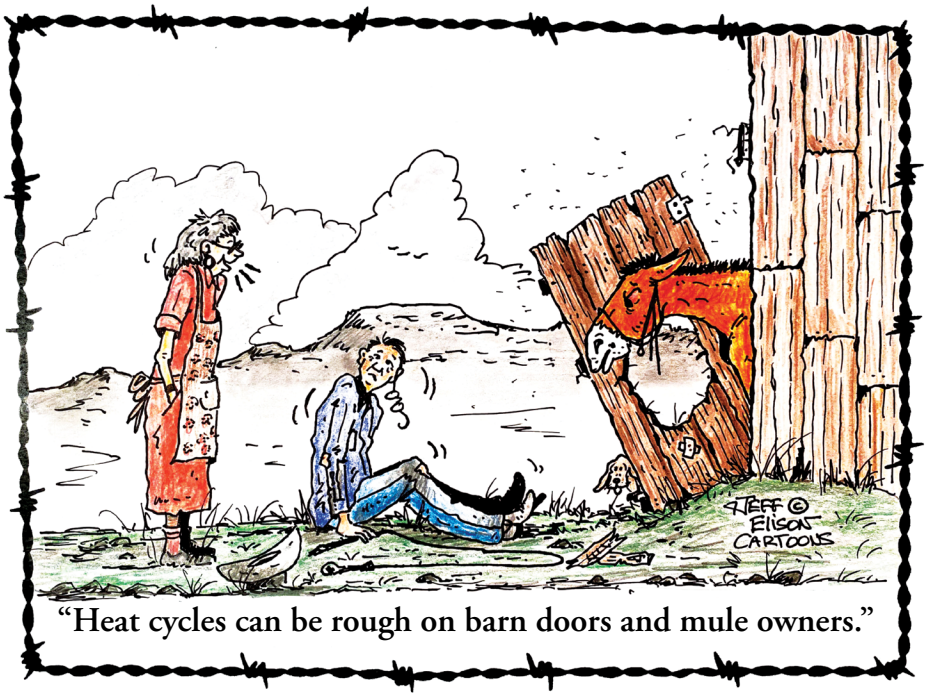

"Heat cycles can be rough on barn doors and mule owners."

Some time back, I offered to Cori my willingness to author an article on laparoscopic ovary removal (ovariectomy) in molly mules, as I always enjoy the educational element of writing articles and sharing what I have learned through decisions made in my quest to be a knowledgeable and responsible equine owner. As I explored one area, I went down a scenic trail that led me into so many different directions and things to consider when making this important decision. Hopefully once read, you too will get excited about the prospect of learning more about your molly mules' behavior and you have some strong revelations about why ovary removal really is a medical procedure worth investing in.

According to Dr. Ragle, a 30-year Veterinarian, "Mother nature has played a cruel trick on molly mules, by giving them all the parts that should work, but don't." Dr. Ragle is the editor of the textbook *Advances In Equine Laparoscopy* and Professor of Veterinary Surgery with the Washington State University Veterinary Hospital. He is among the most reputable 'mule men' in the Pacific Northwest and removes the ovaries of ALL his mules, regardless of what age they come to him.

Behavioral issues during estrous in the mare horse have been documented and treated for some time. Trainers and owners were seeing a correlation between estrous and behavior issues in horses affecting performance. These include performance and temperament, attitude changes, tails swishing, difficulty in training, squealing, excessive urination and kicking. The hormone levels in mules during estrous and pregnancy (via embryo transfer) have been studied and it was found that estrogen levels were significantly higher in molly mule than in the mare horse. This gives mollies a potential to show even more severe behavior changes in estrous than the mares.

The value and popularity of mules are increasing and thus, the expectations for mules to perform at higher levels have also risen. With the uses of the mule becoming more parallel to that of the horse, negative effects of estrous related behavior may become of concern to owners. In mollies, reproduction becomes the number one priority. Even if they don't outwardly exemplify estrous signs, they still can't think clearly and may ignore voice and leg cues in training as their focus is elsewhere. Some exemplify very overt signs of estrus. According to Dr. Bruce Carlisle, Fortuna, Calif., when interviewed about this subject, he had a molly mule that absolutely would not move when she was cycling and would squeal in discomfort. He ultimately removed her ovaries, and this enabled her to become a riding and packing mule without future issues.

Owners may also see their mollies seeking out other animals or 'herd bound' when in estrous cycle. Owners shouldn't be so quick to say, "I never have issues," when in fact there is a chance, you do. You may get rid of some of the super obsessive behavior of wanting to be with the herd when they are not thinking about reproduction.

Dr. Ragle gave one example of a YouTube video that is out there where the molly mule is perceived as protecting a cowboy. He believes this video to be very misleading when in fact what is happening is the mule could care less about the cowboy, rather, wants to keep the mother away from the baby. Common knowledge is that female mules want to steal young more than horses. It is dangerous to have them in the pasture with cattle calving as they may attempt to steal the baby, injure the calf by running over it or exemplify overzealous behavior that would lead to chasing it and therefore killing the calf. Molly mules foaling as a result of embryo transfer demonstrates their stronger maternal instincts compared to horses

and they are considered ultra-mothers or high achievers.

There is a Gypsy Vanner embryo transfer program in Florida where they use mules as recipients/carriers. The mules are economical to purchase and feed relative to draft horses and can survive in coarse pastures and adapt easier to the warmer climates than the imported Gypsy Vanners. The mules make attentive mammas, and some might argue the human emotional element comes into play as you are giving something the molly mule so desperately wants but cannot have. Thus, they get adoptions ($$$) of the 'Mule Moms' in their breeding program.

I came by way of the decision to perform an Ovariectomy on my young molly when I noticed she was temperamental during her cycle and challenging to handle. She was my show prospect, so I did not want her cycling when I was at an important event. She was two years old, and for me, it was a game changer. She started 'catching me' out in the pasture, peeling away from the herd and walking a great distance to be with me. She just went into a "Zen mode" and became far easier to work with and more compliant. This decision led me to have all our molly mules' ovaries removed, except for our race and gaming mules. Regarding our race mules, the studies were not there to determine the possible side effects on their racing capabilities, so we opted not to remove their ovaries. Theoretically, the energy and drive would be rechanneled, and estrus might decrease the desire and ability to race, but it is hard to ask a mule what they think, and we weren't willing to risk a change in behavior on already successful careers. The molly mules on racetracks typically outperform john mules so again, we did not want to alter their behavior and desire to win in this period.

Don Jacklin, 20+ year President of the American Mule Racing Association had this to share relative to racing mule. This can apply to barrel racing or gaming mules as many are retired racing mules.

"Some of the female race animals (est. 40%) showed strong negative effects when in heat. They were as you described and did not run well during those heat periods. The remaining 60% showed small aspects of heat, but with no super negative reactions – but noticeable. Thus, we began to use Regimate (at the time it was called "Regumate"). This worked, but as with everything, there was a repercussion. I always noticed the race animals seemed to be lethargic while on Regimate, and never were "on the muscle," as you would want a race animal to be. Obviously, a hormonal reaction (plus or minus) was occurring. We had ovary removal surgery done on two race girls --- Selway (a Hinny) and Geisha Girl (a Hinny). Selway was especially goofy when in heat and really needed a change. Both ran well in later life, and heat issues were not noticeable. Overall, I believe Ovariectomy is a good procedure for both race and performance mules.

We raised 10+ Hinny's when we had both the Appaloosa stud and a Dash for Cash Quarter horse stud. It was very apparent that the Hinny females showed a higher level of nastiness during heat periods then the female mules!"

Mark Mattox, Mesa, Wash., said, "In my practical experience, I have found ovary removal makes the mule calmer, less pushy, mellower, and less dominant. It allows me to train every day of the year."

The downside to an ovariectomy is that it is permanent. However, you do not have the expense, risk of human handling and time, in administering products like Regumate, mare magic, or other non-surgical alternatives.

Though rare, there have been a few instances where an owner has spayed the mule, and it comes into heat. So where did the estrogen come from? If you remove the natural sources of progesterone, you make it hypersensitive to estrogen. Some mules are extremely sensitive to estrogen, and it can exist in some food stuffs including some common supplements owners use like soybeans, flax, oats, barley can cause this. (Complete list available by request from author).

Now comes the question, "Do I remove the ovaries laparoscopically ($1,500-$2000) or by performing a copotomy (approximately $800)?" Prices are in the eyes of the beholder. Do you

One year old Gem's Walking By Faith in having an laparoscopic ovariectomy . Typically they can do the procedure standing, but because she was a little nervous and moving in the stanchion, we made the decision to lay her down.

Lucy, a 13 year old mule, undergoing the procedure while standing

want 21st century technology or 18th century, which is when copotomies were first performed in France?

The downside to a copotomy is that it is done blindly, so the tunnel that transitions from the dirty outside world into the clean world is unsanitary and risky. Additionally, the vaginal incision is not closed with stitches so there is additional potential of serious problems if straining or infection occurs. With blood vessels, you may have hemostasias descent for a blind crushing mechanism, hit or miss. You don't want a 50-50 chance of hemostasias. Lastly, going through the flank creates a higher chance of complications from poor surgical access and large incisions.

Laparoscopic ovariectomy is minimally invasive and relatively inexpensive. As techniques and instrumentations improve to decrease invasiveness (Keyhole Surgery), the patients can return to work sooner, with less morbidity and have a superior cosmetic result. Also, an increased ease of postoperative management. The cost-risk benefit makes greater sense.

Mules can have an ovariectomy at any age, but typically the minimum is one year, as they are willing to stand in a stanchion during the procedure. In fact, the earlier the better, as some of the mare-ish tendencies become stronger rooted, with age.

What if there is not a vet hospital nearby that performs laparoscopic ovariectomies, should I opt for a traditional copotomy? Drive the distance. That is like taking your grandmother to immediate care facility for heart surgery. Often state universities have vet hospitals that perform this procedure. In our area, laparoscopic procedures were being asked for by equine owners, so our vet flew in a surgeon from Colorado to learn how to perform the procedure and now makes this an offering at his vet hospital.

Lastly, Dr. Ragle, in conjunction with several other WSU veterinarians, have published reports entitled "*Use of a motorized morcellator for elective bilateral laparoscopic ovariectomy in standing equids: 30 cases and Estrous Behavior in Mules, An Owner's Perspective"* that I found to be very informative. Copies can be viewed via a Google search.

I hope this article has enabled you to better understand molly mule behavior as it relates to their ovaries and the options that are available to you. With the increased research being done on mules, thanks to Dr. Ragle and countless others, it is important that we are good stewards in the industry and willing to share these exciting new advances.

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