



Horse Care

Foaling Complications: Part One

by HEATHER SMITH THOMAS

Sometimes after foaling, the mare experiences problems. These situations can range from mild and temporary to serious and life-threatening. Jennifer Davis, DVM, PhD, DACVIM, DACVCP (Clinical Assistant Professor, Equine Medicine and Clinical Pharmacology, North Carolina State University), sees a lot of post-foaling problems at the university animal hospital.

Retained Placenta

This is one of the most common complications after foaling. “In mares, it’s different than in ruminant species like cattle (cows can safely retain the placenta for several days with no ill effects). In mares, if the placenta is retained as long as three hours, they should be treated. Any time a mare has a placenta retained more than three hours, there is possibility that she could start absorbing bacteria and toxins from the uterus, become systemically ill, and show signs of endotoxemia, which can lead to shock and laminitis,” says Davis.

“Retained placenta should be treated aggressively with Banamine as an anti-inflammatory agent, and antibiotics. We may attempt to get the placenta out, but that can be difficult if it’s adhered tightly. Mare owners should not pull on the placenta; if they break off the part that’s visible, it is harder to remove the remaining tissue. Usually we try to weigh down the external tissue. We’ll put a wrap on it, which will get wet and heavy, and provide gentle, steady tension on the placenta to help it come out,” explains Davis.

“Another thing the veterinarian might do is distend the placenta with fluids. This can often break the seal between the placenta and the uterus, providing the placenta is intact and the fluid isn’t just going directly into the uterus. Other than this, it’s usually just a matter of patience and gently teasing it out over several days—but this is not

something we advise mare owners to do,” she says. If part of it breaks loose and leaves a piece or pieces in the uterus, this can be a serious situation.

“When it comes out, we want to make sure the whole placenta has come loose. It needs to be examined by a veterinarian to make sure that it’s intact, with none left inside. If a piece stays in there, it acts as a nidus for infection. Even if the whole placenta does come out, the mare may have endometritis or a metritis—infection in the uterus that needs to be treated with antibiotics and flushing, by the veterinarian.”

She sees a number of side effects from retained placentas, the most common being founder. “This can be very devastating to the mare, so we try to get on top of this as quickly as we can. We’ll often administer preventative medication, if a mare is being treated for retained placenta. We’ll keep her in a heavily bedded stall, and put wraps on her feet. Sometimes we ice the feet, or give medications to help maintain blood flow to the feet. We make sure there is enough padding to keep them comfortable and not bearing too much weight on the toes,” she says.

“Sometimes these mares need IV fluid therapy, particularly if they show signs of endotoxemia. They may need hospitalization—especially if the placenta hasn’t passed within 24 hours of foaling. Making sure we get everything out, and that there is no infection left in the uterus, are key, since this can impair the mare’s ability to rebreed. She may miss a season, or she may develop scarring in the uterus and have permanent fertility problems,” says Davis.

“Retained placenta can occur with normal foaling, but is more common after a difficult birth, which can also imply that there might be something wrong with the baby, so keep a close eye on the foal. Any time a mare foals, the placenta should be examined thoroughly, to make sure there are no areas of infection, thickening or any other abnormality.” Even if the birth seemed perfectly normal, the placenta should be examined. In some cases it may be heavier than normal, which might mean the tissues are thickened—which is seen with fescue toxicity.

“The placenta changes in later pregnancies, as a mare gets older. The uterus gets more and more abuse as the mare has more foals,” says Davis. If you have any questions or suspicions about the placenta, it’s always a good idea to have your veterinarian check it. Many mare owners routinely save the placenta to have their vet look at it when he/she comes to check out the new foal and the mare. Put the placenta in a plastic bag and put it in your refrigerator until the veterinarian arrives, suggests Davis.

Make sure everything passed and nothing is left inside



the mare. “Sometimes just the tip of one horn is torn off and stays in the uterus, and can lead to infection—which may not be recognized until too late to head off a long-term problem. If noted, however, you could immediately start flushing the uterus and put the mare on systemic or intra-uterine antibiotics,” says Davis.

Uterine Tears

On occasion, the uterine lining or wall may be scraped or torn, especially if it’s a difficult birth and the foal had to be pulled or is large for the mare. “A tear can be hard to diagnose. Uterine fluid starts to leak through the tear, into the abdomen. You don’t see anything unusual at first because the abdomen is large; it may take awhile for the fluid that’s leaking in there to set up infection and for the mare to show signs. She’ll get a fever and go off feed, and show colic and depression. It can be extremely serious; there may be fibrin forming in the abdomen, which can lead to adhesions between the intestines, and the mare becomes prone to chronic colic,” says Davis.

“Overwhelming sepsis can be life threatening and the mare can get very sick. There’s no way to sew up the uterine tear except to take the mare into surgery. Even this is not always successful, since the tear may be difficult to access. But sometimes you can treat the infection and keep it under control while the uterus heals. Thus it’s much better if it’s a small tear, and you catch it early and treat the mare,” she says.

“Sometimes we have to put drains in the abdomen and flush the abdomen from the outside. It can become very complicated, so you want to avoid this if possible. Anytime there’s a difficult birth or the baby has to be pulled, it’s wise to have your veterinarian take a feel of the uterus after the foal is delivered, to see if everything is all right. This can be difficult to determine, however, because most people’s arms aren’t long enough to feel to the end of the horn that the baby was in. Once the uterus starts to come back to normal size, it folds back in onto itself, so it can be hard to diagnose these tears after the fact,” she says.

“As a referral hospital, we don’t often get to check the mare until there is actually an infection in the abdomen. Then we do an abdominocentesis (sticking a needle into the abdomen and sampling the abdominal fluid) and find increased white cells and protein and sometimes red cells. We can also insert an endoscope into the uterus and look around. The tear can be hidden in one of the folds, but the endoscope is often more successful than trying to get your arm far enough in there,” she explains.

“Some people recommend filling up the uterus with a sterile dye, then looking to see if it shows up in the abdomen. In my experience, however, this test isn’t often successful just because of the volume you must put into the uterus to fill it up. To actually detect a color change in that much abdominal fluid can be difficult. I try to diagnose the problem by manually feeling a tear in the uterus or being able to see it with the endoscope,” says Davis.

“This is a life-threatening problem, and if the mare does survive, the torn area may scar down and prevent her from

carrying pregnancies in that horn in the future, if it’s a big enough tear. If she is bred again, you are basically cutting your chances in half, to have her become pregnant. Most of the time, we are worrying about just saving the mare. If she survives, we tell the owner that she may not be the best broodmare prospect,” she says. The mare may be systemically ill and at risk for laminitis and other complications that could also be life-threatening.

Post-Partum Colic

“There are a couple specific types of colic related to pregnancy. One is colon displacement or torsions. What happens is that the abdomen has been filled with this huge baby, and now it’s gone and there is suddenly a lot of empty space. The colon can gas up and then get out of place or turn over on itself. Things start to twist. Occasionally, displacements can be treated medically, but colon torsions are surgical cases and are fairly difficult to treat,” she says.

“If the colon starts to lose blood supply (the twisting shuts off blood vessels) it may leak toxins and bacteria into the bloodstream. It is very difficult to actually remove all of the colon. It’s a very expensive process and the animal tends to have more complications than if we remove a piece of small intestine because they lose the ability to absorb water.” The colon is where the remainder of any fluid in the digestive tract is resorbed before the balls of feces are formed, to be passed on out. With the colon removed, the horse may have problems with chronic diarrhea, she explains.

“Fortunately, torsions are less common than displacements, after foaling. Displacements tend to do very well after treatment. Most of them are surgical, but some can be treated medically—with supportive care, lots of fluids and a little pain relief. If the colon is not displaced too far for-

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A minor tear at the top of the vulva that did not go clear to the rectum so no surgical repair was needed



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ward, and we can get the mare moving and restore some motility, things may straighten out and she will be able to start moving things through again," says Davis.

"Sometimes we just get lucky; about 20 to 30 percent of the displacements we see here we are able to treat medically but the rest of them have to go to surgery. This usually depends on how distended they are with gas, and how painful. One thing we worry about with colicky mares is that they might hurt the baby." Some mares will be in such pain that they throw themselves down and may injure the foal.

"This doesn't happen very often, because most experienced broodmares pay attention to where their babies are at all times. They are very focused on the foal, even to their own detriment. They tend to take care of the baby and worry about it and may not show as much sign of colic as other horses. They are being overly protective of the foal and don't want to get down and roll, like they would normally. Sometimes this can delay our diagnosis."

Another thing that sometimes happens is that if there's retained placenta or fluid in the uterus that needs to be flushed out, the mare is often put on oxytocin after foaling. The oxytocin therapy can make a mare act a little colicky, just because it stimulates the uterus to contract more. "These contractions can be painful, and people think the colic is due to the oxytocin when it may be due to an actual intestinal problem. This can mask the picture. If the mare gets colicky, we usually stop the oxytocin therapy for a couple of hours to see if the signs of colic resolve. If the colic is due to oxytocin, the signs should resolve fairly quickly. If colic persists, the mare needs to be treated," explains Davis.

"The other type of colic involves bruising of the intestine. The foal in the uterus sits on a piece of intestine for awhile, and this pressure can actually bruise the intestine, causing some hemorrhage in its wall. Any time that happens, this can stop the motility of that piece of intestine. The one we worry about most is the cecum. It is located on the right side of the abdomen so it usually only happens with right horn pregnancies," she says.

"If the bottom part of the cecum gets damaged, food starts building up in there. The cecum gets bigger and bigger, and the problem with this is it's a very distensible piece of intestine so you don't really know this is happening; the mare doesn't show signs of colic until it gets very distended. She looks fairly normal, but has this huge impaction in the cecum, with gas or fluid building up in it," says Davis. The mare might not colic until the very end, when the cecum is about to rupture.

Even though the bruising takes place before foaling, you generally don't see any signs until after the mare foals. "We don't know if that's because food can't really build up too much in there with the foal sitting on it—and it can't start to impact until the mare foals and there's more room—or whether it's starting before she foals but is just a mild prob-

lem that is building up by the time she foals. We usually see it in the first week or so after foaling," she explains.

"Cecums can get very large and you may not notice any signs of problems until they are about to rupture. We've had some rupture from this buildup. If fluid therapy isn't helping and painkillers aren't controlling the pain, the mare sometimes needs to go to surgery to have the impaction removed," she says. A successful outcome, however, depends on how much of the cecum was compromised during the pregnancy. This will determine whether or not it will start moving again.

"The cecum is another piece of intestine that is difficult to remove. If the problem occurs up near the top of the cecum you can't really get to it in surgery. You can bypass the cecum, which may prevent future impactions, but this still does not allow you to remove any compromised tissue. This can be a life-threatening problem for the mare after foaling. Usually the first clinical signs (that owners should look for) are decrease in fecal output—less than five piles per day—and what the mare passes is often smaller than normal piles," she says. Sometimes the manure is firm, but in some cases it can actually get too soft because not much can come through the impaired, partially blocked cecum except liquid. The mare may have diarrhea—passing the fluid that can move across the top of the impaction.

"With any horse we have here in the hospital, we monitor how many fecal piles are produced every day. If it gets below five piles, we do a rectal exam and possibly tube the mare with oil to see if that comes through—although they can pass oil and still be blocked in the cecum. This is something owners can do at home, however, after a mare foals, monitoring how much feces she is producing. At that point she should be eating a lot (to produce milk) and passing a lot of manure," says Davis. It is usually obvious when a mare develops decreased fecal output.

"Sometimes we get fooled because a mare is passing a normal number of piles, but when you actually examine the piles you find they are smaller, or they are too dry or too loose," she says. If things don't seem quite right, you have your veterinarian check the mare. It's always best to check. ■

