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By Les Sellnow Photos by Anne M. Eberhardt

When Foaling Goes Wrong

here is something magical about foaling time that involves more than just observing the start of a new life—special though that might be. In addition, it often is the fruition of months, even years, of planning and anticipation on the part of the owner. As we stare in wonder at a wobbly foal, we often see more—a stakes winner on the racetrack or a steeplechaser soaring over fences.

The anticipation reaches its apex when the mare goes into labor and a tiny hoof makes its appearance, then another, then the nose, the neck, shoulders, and, in a rush, the rest of the body.

Unfortunately, it isn't always that simple and straightforward. Sometimes things go wrong and a potentially wondrous event turns into a nightmare.

A mare having difficulty giving birth requires immediate attention

Quite often when health issues arise with a horse, there is time to evaluate what has gone wrong and carefully plan a course of action to solve the problem. With a birthing problem, technically known as dystocia, one often does not have the luxury of leisurely planning a treatment protocol; time is of the essence.

Dr. Juan Samper, a reproduction specialist in British Columbia, Canada, and a frequent presenter at American Association of Equine Practitioners and Society for Theriogenology conventions, called the birthing process a "very explosive" event. If something goes wrong, he said, there is very little time to correct the problem before irreparable harm might be done to both mare and foal.

Once serious labor begins and the mare's water breaks, Samper said, the foal should be on the ground in 30 minutes—45 minutes at the most.

Unfortunately, a rather significant number of foals are lost as a result of dystocia each year. In 2005, the USDA's National Animal Health Monitoring System con-



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ducted a study of equine operations to collect data on equine health and management practices. Involved were operations in 28 states with five or more equids on

the premises.

It was found that foal mortality due to dystocia, trauma, or complications at birth accounted for 10.7% of the foal deaths in the study areas.

The problem is once the birthing process gets under way and the horse owner or caretaker realizes something has gone awry, there can often be a delay in the arrival of professional help. Even though a call might be made immediately after detecting a problem birth, it could be a halfhour or more before a veterinarian reaches the farm.

Samper has some suggestions concerning how to discern whether a problem has developed and what to do while awaiting help. Once the mare is down and in labor, he said, first one foot and then the other should make an appearance, followed by the nose and head. To make certain all is going well, he said, the attendant can reach into the birth canal to determine whether there is proper presentation once the first foot makes its appearance.

"The second leg should be right there, about six inches behind the first foot, and the nose should be about six inches behind the second foot," Samper said.

The reason for the legs emerging slightly staggered, he explained, is because the foal is turned somewhat in order to facilitate the passage of the shoulders through the birth canal. If both feet are together, the shoulders are squared up and, thus, occupy more space. By one limb being slightly forward of the other, one shoulder goes through the birth canal at a time.

If a check of the foal reveals that one of

the legs or the head is out of position, it is a clear indication that problems lie ahead, Samper said. Because a mare's contractions are very powerful, it can be difficult to reposition a foal and Samper doesn't suggest that a person lacking experience give it a try. It is better, he feels, to wait for a veterinarian, if at all possible.

"You have to know exactly what to do and do it quickly," Samper said about an assisted birth that might involve repositioning of the foal. While waiting for professional help, he suggested, an attempt should be made to slow the birth process.

About the only way to slow the process without a veterinarian administering drugs is to get the mare on her feet and walking, Samper said. She still might have contractions, but the abdominal muscles do not work with as much power when the mare is walking as when she is on her side.

In addition, there is always the off chance the foal will slip back into the uterus and reposition itself. This is a longshot, however, and not something on which one should depend. Getting the mare on her feet also might prevent some of the amniotic fluid from being lost. The fluid is a valuable lubricant.

Once the veterinarian arrives, an examination will reveal how serious the problem is. It can range from something that can be relatively easily solved, such as a simple repositioning of a leg, to something much more complex.

There are so many things that can go wrong during what nature designed as a simple procedure of birth that it is difficult to know where to begin. Perhaps, however, the most common problems stem from the foal being out of the correct position for the birthing process. This might be as simple as one front leg being flexed to as complicated as all four legs being presented at the birth canal at the same time.

Discussing malposition problems in





Great care should be taken to manipulate a foal that is not properly positioned



Nature designed the birthing process as a simple procedure

depth during a past theriogenology gathering in San Antonio was Dr. Robert Hillman of New York. Most of his comments were aimed at veterinarians who are called to farms to deal with dystocias, but they also contain valuable information for owners.

Once the problem has been diagnosed, Hillman said, it is important for veterinarian and owner to have a consultation concerning what procedures should be taken to resolve the problem, what the costs might be, and the chances for success. As indicated earlier, there isn't a lot of time for discussion—decisions must be made rapidly and procedures begun with dispatch.

Earlier, Samper strongly suggested that a foaling attendant not attempt to reposition the foal unless he or she is very experienced in the procedure. One of the reasons for that advice involves the power of a mare's contractions. It is almost impossible to fight against them. Instead, the veterinarian has learned to work with the mare—to cease efforts while she is pushing and to work at repositioning when she relaxes.

Here is what Hillman had to say as printed in the theriogenology proceedings:

"Before attempting correction of any abnormal presentation, position, or posture, it is necessary to carefully repel the fetus out of the pelvis back into the uterus to allow room for mutation (moving it into the correct position). Pumping one to two gallons of diluted J-lube (an obstetrical lubricant) around the fetus prior to starting serves to distend the uterus, providing more room to work as well as supplying the desired lubrication. Judicious repulsive pressure is applied to the fetus between expulsive efforts of the mare. When the mare strains, the fetus is held steady, but repelling effort is only applied when the mare is not straining. The fragile nature of the mare's reproductive tract must be kept in mind and any manipulations made as gently as possible, as brute force could result in severe trauma. The use of epidural anesthesia is dictated by the degree of straining and the difficulty anticipated to achieve the required correction. When repositioning the limbs, it is important not to 'fight' the mare. When the mare strains stop manipulations, and when she relaxes make the necessary adjustments. Forcing changes during tenesmus (straining) invariably creates undesirable trauma and can lead to the demise of the mare as well as the fetus."

Samper believes strongly in fully lubricating the uterus while attempting to reposition the foal. In some cases, he said, he has inserted a water hose into the uterus, forcing water to surround the foal. There is virtually no danger that the water pressure will cause damage to the uterus because the excess will be forced out through the vagina, he said.

ELBOW LOCK

Earlier, Samper explained why one foot is presented in front of the other—to allow easier passage through the birth canal. When this is not the case, according to Hillman, a condition known as elbow lock can occur. An indication of elbow lock presents when one or both feet are at the same level as the muzzle, with one or both elbows lodged against the pelvic brim. The condition is resolved, Hillman said, by carefully repelling the fetus to allow room to extend first one elbow and then the other, to permit delivery.

CARPAL FLEXION

Another condition involves carpal

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(knee) flexion. This means the head is ready for presentation, but one or both knees are flexed. When checking on the foal's position vaginally, the nose will be available to touch, but not the front feet.

Once again, the problem is resolved by pushing the fetus back into the uterus, then carefully repositioning the front legs. In the case of a dead fetus, Hillman said, it sometimes is more expedient to perform a partial fetotomy (removal of a dead foal from the uterus in pieces), removing the front legs at the knee joint.

FOOT-NAPE POSTURE

A troublesome form of dystocia is caused by the foot-nape posture. This means that the fetal head is extended into the vagina and the two front legs are crossed over the head with the points of the hooves pointing toward the roof of the vagina. This type of condition must be dealt with swiftly, Hillman said,

because strong abdominal straining can result in perforation of both the vagina and the rectum.

Correction of the condition involves repelling the fetus back into the uterus and repositioning the legs so that they are under the foal's chin.

POLL POSTURE

A vertex or poll posture, Hillman said, results when the nose of the fetus catches under the brim of the pelvis. The top of the head and ears will be present at the inlet to the birth canal, but the birthing process will be stopped there until the situation is rectified. Repelling the fetus into the uterus and repositioning the head allows the delivery to proceed.



The birth of a foal follows months, even years, of anticipation

folded between the forelimbs, toward the foal's belly.

HEAD DEVIATION

Described by Hillman

as a particularly difficult

dystocia is lateral (to-

ward the side) or ventral

(toward the belly) de-

viation of the head and neck. What this means

in layman's language is that the neck and head

are folded back along the

foal's body. The forelimbs

will be located within the

pelvis without the presence of the head, which is

near the hindduarters. In

cases of lateral deviation.

the head and neck will

stretch along the foal's

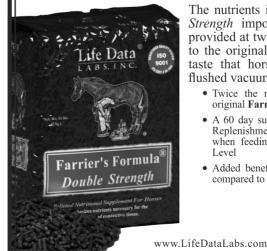
side. In ventral deviation,

the head and neck will be

Attempts at correcting either of these deviations, Hillman said, should be preceded by epidural anesthesia, copious lubrication, and, if possible, standing the mare on a slope so that her rear quarters are elevated. Due to the length of the neck, it might be impossible for the veterinarian to reach in and reposition the head. The veterinarian might be called on to use a head snare, eve hooks, or a towel clamp to grasp an ear or skin. The above three approaches would be used to bring the head within reach of the veterinarian's hand so that the muzzle could be guided into the pelvis.

If the problem isn't resolved within 10 to 15 minutes, Hillman reported, the mare

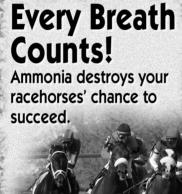
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In Samper's experience, mares that have undergone successful Caesarean sections, minus infection, have proved to be good breeders in the wake of the surgery. The same cannot be said for mares that have undergone a fetotomy, he said. Because of the potentially abrasive nature of the procedure, resultant damage to the reproductive tract can result in a problem or infertile breeder.

Other veterinarians say, however, that if a fetotomy is done efficiently and carefully, it's actually less invasive and not as stressful to the mare as a Caesarean. Since equine veterinarians generally aren't as practiced at fetotomies as, say, cattle veterinarians, the procedure might have gotten a bad rap from a few fetotomies by inexperienced hands that didn't go well. But veterinarians well-schooled in the procedure can perform a fetotomy without harming the mare.

POSTERIOR PRESENTATIONS

Posterior presentations, Hillman said, are relatively rare in horses, with only about 1% of equine dystocias resulting from that particular problem.

A more common problem occurs when the fetus presents in a lateral position and becomes lodged at the pelvic brim. The solution in this situation, according to Hillman, is to repel the fetus and rotate it into a dorsal position for delivery.

DOG-SITTING

A condition known technically as transverse presentation, and by some laymen as "dog-sitting," is one of the more difficult ones to resolve. In this situation the rear legs are drawn up or flexed beneath the foal's underside and lodged against the pelvic brim. The goal of the veterinarian when this problem occurs is to push the rear legs back so that the hips can enter the birth canal, followed by the legs. It is one of those situations where the solution is easier said than done, and some cases where dog-sitting is involved require a Caesarean section.

OVERSIZED FOAL

A potential problem that concerns many horse owners involves an oversized foal. The fact of the matter, Hillman said, is an oversized foal rarely is the cause of dystocia. When it does occur, he said, Caesarean section is recommended. If the foal is dead, a fetotomy might be in order.

DON'T FORGET THE MARE

It should go without saying that when dystocia is involved, proper aftercare of the mare becomes a high priority. If the dystocia has been quickly resolved, minimal treatment might be all that is required. The more serious dystocias, requiring invasive procedures, might call for a more involved treatment protocol and a closer monitoring of the mare's reproductive health in the future.

TAKE-HOME MESSAGE

Working closely with one's veterinarian before, during, and after the birth of a foal is of top priority. When birthing problems arise, there is little time to spare and decisions are often made in seconds. If one has a strong working relationship with a veterinarian, it facilitates the decision-making on all sides because each knows how the other thinks and operates. No time is wasted in "getting acquainted" dialogue. The discussion gets immediately to the point concerning what is best for the mare and the foal.

