Foaling

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The date is near the count-down on; so what do we need to do to be ready for your mare foaling.

Firstly – is she still in foal? It is not uncommon to check mares that have gone past their expected foaling date and find that they are not in foal despite "looking" in foal. Remember you have been feeding for 2 and if she hasn't been sharing that with a foal she may well look large and dappled but that enlarged udder is in fact just a fat pad in front of the real udder tissue. It is better to check than to wait until November for a foal that wasn't there and miss half the breeding season.

Secondly, is she in good condition? In the last issue we discussed care of the pregnant mare and if your mare is not holding her condition well you need to review her diet, dentistry, worm treatment, chronic lameness and other health issues that require addressing before it is too late and you risk losing both mare and foal.

There are various conditions that occur in late pregnancy to be aware of as early intervention may save two lives. The most common is early udder development and/or a discharge from the vulva or sticking to tail. These are usually signs of infection in the vagina and tracking through the cervix to the placenta and impending abortion. If identified early and treated with appropriate antibiotics, +/- Caslick +/- altrenogest [many of you will be familiar with Regumate ®] you may still get a live foal. If they still have some time to go until due to foal they will require regular monitoring and possibly repeat courses of antibiotics or in some cases long-term treatment until foaling. The foal may be born compromised and should be examined and treated as such. There are other causes of abortion in the mare and often there will be no warning signs. All abortions should be investigated as some are contagious and require special quarantine and hygiene measures to reduce the risk to other pregnant mares. Properties with a history of viral abortions or where pregnant mares from various sources are mixed together each year should consider vaccination – discuss with your veterinarian.

Ventral oedema [swelling along the midline of the abdomen] is not uncommon in maiden mares and may be quite pronounced. These mares should be checked as it may be due to a heart condition which could be serious especially when she starts foaling; due to a low protein diet; or due to the weight of the foal on the veins of the abdominal wall which is still serious as this swelling may stop the mare from being able to really "bear down" and squeeze the foal out – the uterine muscle can't do the job alone. These mares often need a little gentle traction to help pass the foal. The swelling usually resolves within a few days [unless due to heart failure] and rarely occurs at subsequent foalings. This condition should not be confused with rupture of the pre-pubic tendon that runs from the front of the pelvis to the ribs, or abdominal wall rupture. These may have a variety of causes – trauma, twins, foetal giants, hydrops [excessive fluid in uterus] and present with an obviously severe dropped abdomen or discrete swelling in one area are generally reluctant to move & may be colicky. These mares should be examined by ultrasound to determine the extent of the defect and for any uterus or bowel in the herniation. Conservative treatment is usually advised = stall confinement, pain relief and strictly attended foaling. The use of milk analysis to predict foaling [see later] and then induced foaling may be useful to ensure the attendance of experienced personnel. After foaling surgical options may be considered to repair the defect.

Mares in late gestation are more prone to large bowel displacements. Sometimes these present as acute severe colic or may initially be a mild but recurrent colic that progresses to a serious impaction. These may be difficult to diagnose but may be amenable to surgery without loss of the foal if identified and operated on early but require transfer to an experienced well staffed surgical facility as they are a very challenging surgery. Uterine torsion will also usually present as colic or may be seen as a dystocia at the time of foaling and the severity of signs depends on the degree of torsion and blood vessel compromise. It requires urgent veterinary assistance.

There are many conditions that may affect your mare at any time but be more serious if she is heavily in foal. Careful monitoring and discussing any abnormalities with your vet should be routine practice.

Another point to consider is when is she actually "DUE"? Gestational length may vary from 320-360 [average 341 days] days from last service in normal pregnancies. Placental disease may result in foaling as early as 320 days and still deliver a live foal although these should be examined closely as they may well be compromised. It is not uncommon [1%] to see pregnancies last beyond 365 days but the foal is often small and may have various developmental abnormalities to be checked for [see next article on the newborn foal].

During the last few weeks the udder "generally" enlarges and "usually" becomes quite full in the last few days with colostrum often sticking like candle wax to the teats. I say "usually & generally" because unfortunately mares don't read the same textbooks we do and it is common for maiden mares to have little udder development and may not even produce much milk for several days after foaling.

While you are checking the udder – it is a good idea to see how the mare tolerates you massaging the udder and wiping the teats clean of any old waxy skin secretions – especially maiden mares. If she resents you she may well resent the foal sucking so it is good to train your mares to let you mimic the foal but don't actually milk her out and lose the colostrum! If the udder develops too early this may be an indication of impending abortion as discussed earlier so get her checked by your vet. Also, if the mare drips a significant amount of milk before foaling she may lose all the immune rich colostrum that the foal needs [We will discuss this in more detail in the next article]. The ligaments of the pelvis have to relax to let the foal pass through and the mare may appear softer in her hind muscles and the vulva long and relaxed – although this again is very variable and may loosen then tighten and loosen again before actual delivery occurs. A more accurate indicator of foaling is milk composition. FoalWatch® kits evaluate calcium levels and are relatively accurate (98%) at predicting if a mare is <u>not</u> going to foal that day & a positive result = 99% chance she will foal in the next 72 hours – useful but not defined. Milk sodium decreases and potassium levels increase immediately prior to birth. When the potassium level is higher than the sodium level the mare will foal within 24-36 hours. However – these levels are not reliable in mares with placental disease so one must be aware of the whole picture.

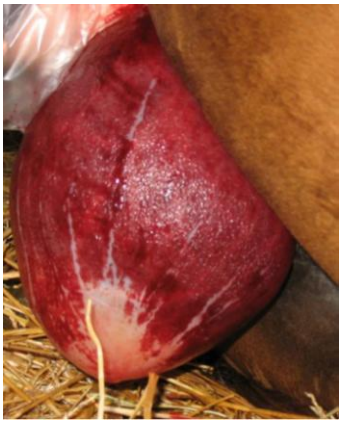
If your mare has been "stitched" also known as "Caslicked" – this needs to be opened a few days before she foals so the foal can get out without ripping the mare – ouch! If it is opened too early there is a risk of infection tracking up the vagina to the cervix and placenta. Also – check a couple of days after opening that it hasn't healed back together again – you can just run a clean finger inside edge of opening to unstick it if done within a few days. Good idea to have the mare in a crush or backed up to a fence so you don't get kicked.

Most mares foal during the night and it is important to have experienced people available in case of emergency as when things go wrong there is little time to act to ensure the best outcome. Foaling alarms are useful but some mares will sleep lying down and set them off repeatedly until you turn them off - and then foal – Murphy's Law again; sometimes they fail to go off for various reasons – battery failure; signal too far from house etc.

Foaling may be divided into 3 stages; In late pregnancy the foal is lying on it's back curled up with the back of it's head towards the back of the mare & tail towards her head. During first stage labour the foal starts to rotate and point it's front feet and head to the way out. The mare will often appear restless even colicky – looking at her abdomen, getting up and down, rolling, urinating and possibly sweating. This may last 1-4 hours but it is common to have the odd "false-start" in the days leading up to foaling.

The second stage of labour starts with the rupturing of the placenta at the cervix and the passage of the foal into the pelvis. One foot is usually a half a cannon bone in front of the other with the nose level with the second knee. This is what we want to see so one shoulder comes through the pelvis first then the next with the head and neck tucked in the space between the forearms. Once the shoulders are through the mare may take a breather but the body & hips usually follow fairly quickly and then she can rest properly. The foal may still be within the amnion sac which will hopefully break as the foal emerges and starts to move but if not it will suffocate if there is no one to open the sac and clear the fluid from it's nostrils. The mare will usually rest with the foals' hindlimbs still in her pelvis. During this time blood is still returning to the foal from the placenta so we want the mare to take her time and not stand too quickly. While watching, this seems to take forever – it is good to have a watch/phone handy so you know how long it really has been. It is normally all over in 20-30 minutes. If there is no sign of the foal within 10 minutes of strenuous labor the mare should be checked for dystocia.

So what can go wrong? – there are whole textbooks on that subject and that is why you should always have your mare where there are experienced people at hand. There is loads of information on the internet – one I recommend is http://www.foalinmare.com - an excellent video of normal and abnormal foaling. OK – so most do it on their own quite happily – but when things go wrong boy do they go wrong quickly. Examples of the more common problems include only one front foot; front legs folded due to contracted tendons; front foot through vaginal wall into rectum; tail first; back feet first; only one foot; worse three feet; worse again 4 feet…… all of these will present with dystocia = a lot of straining and no or only part of a foal.



Or everything might come at once, also known as a "red-bag" delivery where the placenta has already separated from the uterine wall and is being expelled with or intact enclosing the foal. This is another urgent problem as the foal is no longer getting oxygen across the placenta – it must be extracted from the mare immediately but still with careful traction so as not to kill the mare by rupturing something. The foal then needs immediate resuscitation and possibly intensive care to treat the effects of hypoxia. They are not always a lost cause but a serious cause for concern.

Once everyone has had a rest either the mare gets up or the foal starts to try and either way the umbilical cord gets stretched and breaks. Occasionally it may continue bleeding and it should be tied off – thick fishing line or thin twine are just fine and the stump dipped in iodine solution to reduce the risk of infection. Back to the mare – she should be standing within 10-30 minutes of foaling and showing an interest in licking and nickering to bond with her foal. She may appear a little uncomfortable again when passing the placenta anywhere between 15 minutes to 4 hours after foaling.

If the placenta is not passed naturally please don't pull on it – there is a risk of breaking it under pressure and part of it already contaminated from the outside may then ping back into the uterus taking dirt and bacteria with it. If there is a long enough piece hanging out it is good to tie it in knots so (a) the mare doesn't stand on it and break it and (b) then gravity can help the process ease it out. Don't tie anything to it to help with the gravity or you get back to the risk of breaking it. If it hasn't passed within 6 hours call your vet first thing in the morning to come out and hopefully ease it out gently. There is a serious risk of a life-threating infection with retained foetal membranes [RFM] and mares need to be treated appropriately with a suitable antibiotic, anti-inflammatories to protect against laminitis from toxaemia, flushing and oxytocin to aid removal of accumulated fluid and bacteria. Rarely it may take several days to get the placenta out intact but as long as the mare is under veterinary care the risks should be minimized.

An uncommon problem that may occur immediately after foaling or associated with RFM is uterine prolapse. Mares usually appear colicky or in shock with a large oedematous uterus protruding from the vagina. It is life threatening and requires immediate veterinary assistance. Another reason not to "tug" on those RFM's …..

A more common condition that occurs immediately after foaling is bleeding into the ligament(s) on the side of the uterus. This is more common in older mares that have had many foals but that doesn't mean you won't see it in a maiden. The mare presents with variable signs of colic depending on the amount of haemorrhage and needs urgent veterinary attention. Treatment and subsequent suitability for breeding also varies depending on the severity of the haemorrhage.

Rupture of the uterus may present with a large amount of blood being passed from the mare often followed by shock and death, however if she bleeds internally she may collapse before any blood is noted externally. A small rupture may present with intestines being visible protruding from the vagina – obvious very serious and requiring immediate veterinary attention; or causing peritonitis and colic from fluids leaking into the abdomen – another serious problem. Luckily most of these problems are rare but highlight the need for vigilance of a trained eye.

There are again other conditions that may be seen associated with foaling which again stresses the importance of knowing what is normal behavior and appearance and regular monitoring of mares to identify anything abnormal and seeking advice promptly.

If the mare has little milk or is not relaxing she may need physical and/or medical help to get it sorted. Maiden mares often keep circling to look at the foal and won't stand still to let it suck. They usually aren't rejecting the foal as such but it is more likely they are so excited and intrigued by this new creature and just don't know what to do. A simple twitching of the neck skin or nose is usually enough to stop her [against a wall helps] for long enough for the foal to get on and have a good suck. Once the mare gets the idea they usually then become doting mothers and sometimes have to be watched for being "too protective" and won't let you near to check the foal. However, some maiden mares may have little milk and even some multiparous mares may have a habit of taking a few days to produce enough milk. If the foal is always at the mare it is a sign that it is hungry. Hot compresses & massaging the udder may help "let-down" of the milk but occasionally sedation and oxytocin may be required to get the ball rolling. There are other drugs used occasionally to promote milk production where there is little or none but these take a few days to work and so the foal may require bottle feeding in between to keep it going until the mare catches up in production. If in doubt – get her checked out.

Credits:
Ms Bernadette Hamill for excellent photos of normal foaling