Pregnancy

While in the vast majority of cases the mare’s pregnancy and foaling proceed normally and with minimal intervention, there are a large range of problems and complications that can occur.

4 Nutrition – (For more detailed information see page 21)

For the first 7 months of pregnancy, the equine foetus represents a small percentage of the mare’s weight and has very small energy and protein demands for growth. Hence, for the first 7 months of pregnancy, the mare should be fed the same as if she was not pregnant with the aim of maintaining a good body condition score. Excessive feeding during early pregnancy can lead to obesity and problems later on in pregnancy and at foaling.

The late pregnant mare has greater demand for energy, protein, vitamins and minerals associated with rapid foetal growth from the 9th month of pregnancy. Ensure the late pregnant mare is on a good plane of nutrition - aim to maintain body condition of the mare from this time until foaling. This will ensure that the mare is able to produce adequate amounts of milk for the foal and to resume her reproductive cycle after foaling. The following are recommended:

- Good quality pasture supplemented with 1kg of 20-25% protein pellet daily.
- If pasture quality is poor, supplement with 3-5kg of 13-15% protein pelleted feed and high protein hay (Lucerne or clover).

5 Worming – mares should be wormed in the last 4 to 6 weeks of pregnancy and prior to moving into clean foaling areas.

- Vaccination - this provides protection for the foal via antibodies in mare’s colostrum. Ideally boost at least 6-8 weeks before the mare’s due date.
- Vaccinate all mares for Tetanus and strangles.
- Herpes Virus (Duvaxyn) - vaccinate in the 5th, 7th, 9th month of pregnancy where there is a history of herpes virus abortion or a large number of horses on a property.
- On farms where there has been a history of Salmonella or Rotavirus problems later on in pregnancy and at foaling.

6 Vaccination – this provides protection for the foal via antibodies in mare’s colostrum. Ideally boost at least 6-8 weeks before the mare’s due date.

- Vaccinate all mares for Tetanus and strangles.
- Herpes Virus (Duvaxyn) - vaccinate in the 5th, 7th, 9th month of pregnancy where there is a history of herpes virus abortion or a large number of horses on a property.
- On farms where there has been a history of Salmonella or Rotavirus

7 Monitoring mares during pregnancy

All mares should be checked on a daily basis throughout late pregnancy. If a mare has previously lost or aborted a pregnancy, she is considered to be at a higher risk for future problems during pregnancy and should be monitored closely throughout pregnancy.

Some signs to look out for that clearly indicate problems are:

- Signs of premature lactation (mare forms an udder/bags up early and/or runs milk).
- Any discharge from the mare’s vulva.
- Signs of discomfort or colic.
- The mare shows any of these signs, have her examined by a veterinarian immediately as she may need treatment to prevent her from delivering prematurely, and the foal may need extra attention after it is born.

8 Subtle changes in the plaenata and foetal fluids and the foetal heart rate can indicate problems during late pregnancy. Similarly, measurement of the mare’s progesterone (hormone) level during late pregnancy provides a useful indication of problems with the pregnancy and associated foetal stress. It is important to understand that a single blood test to measure the progesterone level is of limited usefulness alone due to normal daily fluctuations in hormone levels in the mare during late pregnancy.

There are a range of treatments which can help to prolong the pregnancy of “high-risk” mares with placentalis and to increase the chances of a healthy foal on the ground from these mares.

Please contact your veterinarian if you have any questions or would like some advice regarding your pregnant mares.

Horses and People magazine.

We are proud to provide you this healthcare information in partnership with Horses and People magazine.

www.equinedentalvets.com.au

Equine Dental Vets an organisation committed to advancing horse health

Our group is made up of Equine Dental veterinarians from across the globe and we have over 300 members right here in Australia. Most of our members provide afterhours and emergency care for all equine health issues and using our dedicated search on our website you can find the Equine dental vets nearest you at the touch of a button. This is particularly useful if you are away from home, for example when travelling to shows and competitions.

written by

Dr Simon Robinson, BVSc BScAg MACVSc Diplomate ACT

Brought to you by...

www.horsesandpeople.com.au • HORSES and PEOPLE • Phone: 07 5467 9796 • admin@horsesandpeople.com.au

www.horsesandpeople.com.au • HORSES and PEOPLE • Page 15
I Think the Foal is Dead...

Many clients bring mares to our practice convinced that their foals are dead. The usual scenario is that they see a behaviour change and stop seeing flank movement. My odds run about one hundred thousand to four that the foal is alive - if she really was in foal...

In twenty-eight years of practice, I have seen one dead mummified fetus, and it was in a mare that had not cycled for over a year. The perfectly formed fetus was clean and had most likely been there for a year without causing any damage to the mare (see image 1). Never say never, but if the foal is dead the chances are the mare will abort it.

I also had one mare with a live foal in her, and the mare had no interest in anything other than eating, even though her cervix was so open you could drive a truck in. I had two mares with long-dead foals and again no signs of labour, but they had vaginal discharges which are a clear signal that there is a problem.

In the last few weeks of pregnancy the foal moves up into the pelvic canal and this is why visible flank movement is hardly detectible. So unless your mare has a discharge from the vulva, the chances are she is still in foal and the foal is just jammed in the birth canal and still alive.

Even the pros get fooled

One of my favorite foaling stories is from my own father who was a noted equine reproductive veterinarian. He decided to video his own mare that appeared to go into active labour in the light of day. As a new graduate, I was there to help.

As an afterthought we decided to wrap her tail so we could get good visuals. We stood her up and wrapped the tail that stopped any further contractions and after an hour of watching we gave up for the day. We were sure she would foal that night. But alas several days later we still weren't seeing any signs of foaling.

The next morning my dad called me up to perform a rectal exam on that mare. He had a funny feeling. His arm was broken and he was unable to do the job. I took one look and said it was a waste of time as she was big as a house, and afterall we had seen active labour.

Nevertheless, dutiful daughter and newbie vet did as the boss directed, and to both of our astonishment she was empty. She had not been in foal for months according to her vet and certainly had no signs of a previous pregnancy (see image 1).

Never say never, but if the foal is dead the chances are the mare will abort it.

That stopped any further contractions and after an afterthought we decided to wrap the tail. As an afterthought we decided to wrap the tail and after the mare and a normal healthy foal, late pregnancy complications such as those described above are all rare events, but ones to keep in mind when you are observing your mare's pregnancy develop.

Teasing but pregnant

In the early stages of pregnancy most mares stop teasing or showing signs of oestrus, however, some mares continue to tease throughout the pregnancy.

When a supposedly pregnant mare shows signs of teasing she should be checked by either manual rectal, or preferably ultrasonic examination to ensure she has not lost the pregnancy. Although rare, she may tease right throughout the pregnancy.

Pre-pubic tendon rupture

Pre-pubic tendon rupture can be a problem in advanced pregnancy. The tendons that attach to the pelvis and that connect the abdominal muscles supporting the abdomen can become stretched and rupture.

In the early stages of the rupture there may be some swelling in front of the udder. This can be confused with normal late pregnancy edema. Normal edema usually occurs in the last two weeks of pregnancy and often starts in the middle of the abdomen and can extend from the udder to the chest or pectoral region.

Pre-pubic tendon rupture is a life threatening condition.

Below: Pre-pubic tendon rupture (ppt) courtesy of: Jan Govaere

As the rupture progresses there is often blood loss and loss of the muscles ability to contract and expel a foal.

In some early mild cases mares can be managed with slings and support, but often pre-pubic tendon rupture results in loss of the mare and a pre-term fetus. If the tear is in early pregnancy the pregnancy should be aborted and veterinary assistance will be needed to assist in delivery.

Ultrasonic examination can aid in the diagnosis in mild cases. While mares with normal edema are slightly uncomfortable, mares with pre-pubic tendon rupture often show obvious signs of discomfort and may look colicky and lay down frequently. The tearing of the musculo-tendominous area can also result in severe blood loss.

Uterine Torsion

In rare cases the uterus can rotate inside the mare. This causes compromises of blood flow to the uterus with stretching and compression on the arteries feeding the uterus and the developing fetus. This usually occurs during the last trimester of pregnancy.

The causes may be a large fetus in a small uterine, an active foal rolling of the mare herself. The symptoms are very similar to colic, therefore all ‘colicky’ mares in advanced pregnancy must be evaluated for possible torsion. This is done by rectal examination and in some cases by vaginal examination.

The treatment is to rotate the uterus back into position. This can be done in a number of ways but the most expedient technique where the mare is anesthetized and then a board is placed on her abdomen. A person can then stand on the board and the mare is rolled in the same direction as the torsion. This procedure takes several people and you are advised not to try this without the advice of an experienced veterinarian and significant manpower (see image below).

If rolling fails and the mare is near term, and or if the cervix is open, the foal can be grasped through the cervix and rocked to attempt to rotate the foal and uterus in a standing position.

Below: Don’t try this alone! Schaudt techniques to treat uterine torsions (see image below).
Premature Lactation

Lactation occurring before the normal expected ranges is a serious clinical sign of placental abnormality.

Mares can start to leak milk about two weeks prior to the due date. While this is not good, it does not necessarily indicate a compromised pregnancy.

On the other hand, lactation well before the due date often signals a problem with the placenta and the developing fetus.

It is more common for mares with twins to start lactation early. This may be due to the death of one of the twins, or because the placenta is not able to accommodate the growing size of both foals.

Other causes include placentitis from either bacteria or fungi growing in the uterus. Diagnostic ultrasound of the placenta and uterus can give useful information.

If the premature lactation coincides with a vulvar discharge, then it is important to consider placentitis and institute treatment ASAP including antibiotics, anti-inflammatory agents and progesterone like supplementation.

Placentitis

Placenta is the term for inflammation (usually due to infection) of the placenta. The placenta is the intricate connection that forms between the uterus of the mare and the foetus. It is also termed the afterbirth as it is passed after the foal has been delivered or the foetal membranes.

The placenta is the life support system for the developing foetus, providing nutritional support and oxygenated blood via the umbilical cord. When the placenta becomes inflamed, usually due to infection travelling along the mare's reproductive tract from the cervix, it becomes thickened and the connection between the uterus, and the placenta becomes compromised.

This can cause foetal stress and ultimately premature delivery of a dead or highly compromised foal.

Viral abortion

Equine herpes virus (EHV1) is a respiratory virus of horses that can also cause abortion to late pregnant mares. It is considered common in Australia, particularly in racing stables and groups of young horses.

The virus is spread between horses via the mouth and airway and is highly contagious. Pregnant mares should always be kept separated (no direct contact across fences) from other groups of horses (young horses, race horses, ageing horses).

Abortion due to herpes virus can occur without any other obvious signs of illness. Furthermore, the aborted foetuses and membranes are a concentrated source of virus that can infect other mares.

Whenever a mare has been found to abort her pregnancy, other pregnant mares should be removed from the area until the mare and foetus have been examined and tested by a veterinary to exclude herpes virus as a cause of the abortion.

Twins

“if i had my mare scanned!” Advanced twin pregnancies occur infrequently, and while most don’t go to term and abort mid to late gestation, some, like the gorgeous twins pictured on the next page, do go all the way. Nevertheless, twinning is definitely a situation to be avoided. If the pregnancy goes full term, the foals born are often small and weak and survival rates are rare.

Premature Lactation

The virus is spread between horses via the mouth and airway and is highly contagious. Pregnant mares should always be kept separated (no direct contact across fences) from other groups of horses (young horses, race horses, ageing horses).

Abortion due to herpes virus can occur without any other obvious signs of illness. Furthermore, the aborted foetuses and membranes are a concentrated source of virus that can infect other mares.

Whenever a mare has been found to abort her pregnancy, other pregnant mares should be removed from the area until the mare and foetus have been examined and tested by a veterinary to exclude herpes virus as a cause of the abortion.

Twins

“if i had my mare scanned!” Advanced twin pregnancies occur infrequently, and while most don’t go to term and abort mid to late gestation, some, like the gorgeous twins pictured on the next page, do go all the way. Nevertheless, twinning is definitely a situation to be avoided. If the pregnancy goes full term, the foals born are often small and weak and survival rates are rare.

Premature Lactation

The virus is spread between horses via the mouth and airway and is highly contagious. Pregnant mares should always be kept separated (no direct contact across fences) from other groups of horses (young horses, race horses, ageing horses).

Abortion due to herpes virus can occur without any other obvious signs of illness. Furthermore, the aborted foetuses and membranes are a concentrated source of virus that can infect other mares.

Whenever a mare has been found to abort her pregnancy, other pregnant mares should be removed from the area until the mare and foetus have been examined and tested by a veterinary to exclude herpes virus as a cause of the abortion.

Twins

“if i had my mare scanned!” Advanced twin pregnancies occur infrequently, and while most don’t go to term and abort mid to late gestation, some, like the gorgeous twins pictured on the next page, do go all the way. Nevertheless, twinning is definitely a situation to be avoided. If the pregnancy goes full term, the foals born are often small and weak and survival rates are rare.

Premature Lactation

The virus is spread between horses via the mouth and airway and is highly contagious. Pregnant mares should always be kept separated (no direct contact across fences) from other groups of horses (young horses, race horses, ageing horses).

Abortion due to herpes virus can occur without any other obvious signs of illness. Furthermore, the aborted foetuses and membranes are a concentrated source of virus that can infect other mares.

Whenever a mare has been found to abort her pregnancy, other pregnant mares should be removed from the area until the mare and foetus have been examined and tested by a veterinary to exclude herpes virus as a cause of the abortion.

Twins

“if i had my mare scanned!” Advanced twin pregnancies occur infrequently, and while most don’t go to term and abort mid to late gestation, some, like the gorgeous twins pictured on the next page, do go all the way. Nevertheless, twinning is definitely a situation to be avoided. If the pregnancy goes full term, the foals born are often small and weak and survival rates are rare.