



Equine Placentitis

By Alex Urban, DVM

As we approach foaling season, several key considerations come to mind, including time-specific vaccination and deworming of the mare, timeline of the normal birthing process, and the “1-2-3”’s post-foaling. An additional point of concern should be the continued health of one very important structure: the placenta. This structure serves to provide the developing fetus with nutrients, oxygen, and waste elimination. Inflammation and compromise of the placenta, termed placentitis, can be a devastating illness in terms of fetal viability (survival to birth) and newborn morbidity (illness) and mortality (death). An estimated 3-7% of mares develop this condition sometime in the last 3-4 months of gestation.

Ascending bacterial (or fungal) infection occurs when the pathogen enters the vagina and gains access to the uterus via a compromised cervix. This is the principal cause of placentitis, though blood borne infection is also possible. Regardless of cause, the inflammation present causes production of prostaglandins which may cause premature contraction of the uterine muscle and subsequent preterm delivery if not addressed. The fetal membranes will thicken and eventually separate from the dam’s uterine wall, leading to significantly decreased oxygen and nutrient transfer to the fetus, and a buildup of toxins within the fetus. In severe cases, these foals will experience accelerated maturation and are thus born mature enough to survive. However, not all organs mature at the same rate, so intensive neonatal care will likely be needed. Once infection is present in the uterus, the key is to stop infection and delay premature labor long enough by early diagnosis and treatment. With dedicated care to the affected mare, many placentitis foals are born perfectly healthy!

Often the diagnosis of placentitis is first established by premature udder development, with or without streaming of milk, and vulvar discharge. The condition can be confirmed (or initially diagnosed) with both transrectal and transabdominal ultrasound. With the transrectal approach, the combined thickness of the uterus and placenta (CTUP) in the cervical star region can be evaluated. Three measurements are averaged, with normal values based on stage of gestation. In addition, marked changes in the shade of fluid associated with pregnancy can be a sign of placentitis or fetal stress. Occasionally, the presence of “pus” can be detected between the uterus and placenta. Similar findings can be acquired with transabdominal ultrasound—though not at the cervical star, so early ascending infections may be missed.

Treatment of placentitis has three prongs: fighting infection, decreasing inflammation, and normalizing uterine muscle activity. All prongs must be addressed continually through the remainder of gestation if successful delivery of a viable foal is to remain possible. Not all antibiotics have the ability to penetrate reproductive tissues. The most common antimicrobial that has this ability is oral trimethoprim sulfamethoxazole (TMS/SMZ); penicillin combined with gentamicin can also be effective. A single daily dose, or two half doses, of flunixin meglumine (Banamine) is included in the treatment protocol to decrease inflammation. An additional medication often included in the treatment regimen is Pentoxifylline due to its anti-inflammatory properties and potential to increase oxygenation of the uterus. Altrenogest (Regumate) is a synthetic progestin (similar to progesterone) that is used to maintain pregnancy by decreasing uterine contractility.

There is no tried and true placentitis prevention method. However, ensuring the mare has proper vulvar conformation can significantly decrease the risk of infection. 80% or more of the vulvar lip length should be below the pelvic brim. If this is not the case, the normal vulvar seal will be incompetent and allow aspiration of air and bacteria into the vagina. Not only does this contribute to development of placentitis, but it can also cause subfertility. Fortunately, poor vulvar conformation can be easily addressed by ensuring the mare is in good body condition and/or placement of a Caslick’s. The Caslick procedure involves suturing a portion of the vulvar lips together to create better conformation in reference to the pelvic brim. If this procedure is performed, be sure that a veterinarian removes the Caslick’s prior to foaling!

It is important that the foaling of any mare with placentitis be attended to ensure normal delivery. These foals can become sick in the 12-72 hours following birth, so it is vital they receive a physical examination and blood work 12-24 hours after foaling. Additionally, be aware that the mare will not always develop overt clinical signs of placentitis. Occasionally, it is not determined an infection was present until post-foaling evaluation of the placental surface, further emphasizing the necessary prompt veterinary attention to the newborn foal.

Contact [Brandon Equine Medical Center](#) at 813-643-7177 or email info@brandonequine.com with any questions regarding this topic.

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