## **Subfertile Mares Need Conscientious Monitoring** (AAEP 2012)

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Many reproductive losses occur in the very early stages of pregnancy, but veterinarians emphasize that losses late in gestation can happen as well. A Louisiana State University (LSU) reproduction specialist recently described how practitioners can monitor pregnant mares to minimize such losses, particularly those mares difficult to get in foal in the first place.

"Considering the time and expense that goes into establishing pregnancy in subfertile mares, careful monitoring during the latter part of gestation is essential to identify any problems and institute multimodal therapy to successfully deliver a healthy foal," explained Sara Lyle, DVM, PhD, Dipl. ACT, from LSU's School of Veterinary Medicine, in her presentation at the 2012 American Association of Equine Practitioners Convention, held Dec. 1-5 in Anaheim, Calif.

Mares dubbed "subfertile" can include those with a history of ascending placentitis, which is infection of the placenta that generally starts in the vagina and works its way up via the cervix. Such infections are the most common complication veterinarians detect late in gestation, occurring in as many as one-third of mares losing pregnancies in the last trimester. The most common cause of placentitis is bacterial infection, picked up in the environment.

"Signs of placentitis include discharge from the vulva, early udder development, prenatal lactation, premature delivery, and stillbirth," said Lyle.

Ultrasonography is the most important tool for monitoring at-risk mares in late gestation to detect potential problems. Transrectal ultrasound, in which the veterinarian inserts the probe into the rectum to view the uterus and placenta, is particularly useful and allows measurement of the combined thickness of the uterus and placenta (CTUP). Increased thickness >8 mm in the ninth month of gestation, >10 mm in the tenth month, and >12 mm in the eleventh month can indicate placentitis. In addition, transabdominal ultrasound—which the veterinarian performs from the outside of the mare's abdomen—enables evaluation of certain fetal characteristics, such as movements and heart rate.

"Transabdominal ultrasound may also be used to assess fetal presentation (to assess whether the foal is in the correct birthing position, for example), and abnormalities of the umbilical cord, especially if Doppler technology is used, and in some cases, in utero growth retardation," Lyle added.

Hormonal profiling, including measurement of the mare's blood progesterone and estrogenlike hormone levels might also indicate potential late-gestation problems; however, unlike physicians, veterinarians rarely sample fluid from the womb, as with amniocentesis.

Lyle concluded, "Serial examinations of the mare, involving ultrasonography and hormonal assays, should begin no later than the start of the last trimester. If monitored and treated appropriately, even subfertile mares with abnormalities can still produce a healthy foal."

Disclaimer: Seek the advice of a qualified veterinarian before proceeding with any diagnosis, treatment, or therapy.