An 18 year old Thoroughbred mare was presented at 286 days gestation with vaginal discharge and enlarged udder. On vaginal speculum examination, there was approximately 15 ml of tan colored fluid within the vaginal vault, and the cervix was softening. A culture of this fluid was negative for bacteria. Serum total progesterin and estrogens were normal for her gestation stage. With a tentative diagnosis of placentitis, treatment with altrenogest, trimethoprim-sulfa, and flunixin meglumine was initiated.

The mare returned at 292 days gestation. A small area of placental separation was noted on transrectal ultrasound and the fluid pooling in the vagina was confirmed to be urine based on specific gravity and creatinine levels. Fetal heart rate was 80 bpm. Treatment was continued.

That night she aborted. The placenta was intact with an area of demarcation at the cervical star corresponding to the placental separation. Giant multinucleated hepatocytes were noted on necropsy.

Based on the foal’s necropsy findings, the mare was tested for leptospirosis. Very high titers were found for *Leptospira interrogans* serovar *pomona*. Three other pregnant mares on the farm were tested with paired serum samples and titers were low.

While the standard for leptospirosis diagnosis is culture and identification, in abortion cases, high titers in maternal serum are considered diagnostic. Streptomycin and penicillin are the antibiotics of choice, with penicillin G used to treat pregnant mares with high titers to prevent fetal infection. Leptospirosis is often subclinical in horses and can contribute to reproductive disorders, including abortion and breeding failure. Because it can persist in the genital and urinary tracts, detection and treatment is important in breeding populations.

The mare’s titers were significantly reduced two weeks later. Because titers were decreasing, treatment was not initiated as the infection did not appear active. The mare was bred three months later and is currently pregnant.

References