A Review of the Many Faces of Placentitis

Igor Canisso, DVM, MSc, PhD, Dipl. ACT, Dipl. DECAR (European College of Animal Reproduction), reviewed key features of placentitis and offered real-world insights into its treatment.

Late abortions—defined as those occurring more than 6 months from foaling—can cost mare owners around $200,000, with an additional $80,000 lost to poor foal viability at birth. Additionally, these pregnancies account for more than 5% of Thoroughbred mares suffering late term abortions, making placentitis among the most common causes.

Canisso explained that placentitis is diagnosed in association with either bacteria or fungi, including Leptospira spp. "Depending on the type of placentitis, mares may present with premature bag development and a direct infection of the cervix, as well as red or purulent vaginal discharge," he said.

Ascending placentitis, resulting from infectious agents entering the uterus from the vagina and cervix, can spread directly to the foal via the umbilical cord. Infection also causes inflammation and prostaglandin production directly infecting the fetoplacental unit. As with ascending placentitis, inflammation and prostaglandin production likely play a role in either premature birth or abortion.

Researchers believe Leptospira is the most important cause of diffuse placentitis causing abortion by induction of fatal renal insufficiency and retard intrauterine growth. "These results suggest that nocardioform placentitis is not simply induced by the presence of nocardioform microorganisms," said Canisso. "Some other unidentified factor might be involved."

"The three main goals are to control infection of the placenta and fetus; maintain quiescence of the muscular layers of the uterus called the myometrium; and block the production of proinflammatory interleukins," said Canisso. "Some foals are born septic or otherwise compromised to mares with placentitis, but this isn't necessarily always the case. Canisso wrapped up by describing a study in which racing records of 2-year-old earnings were compared to those born to mares without placentitis. The foals were no different in terms of number of starts, wins.

"The University of Illinois Urbana Champaign's College of Veterinary Medicine, he now works in the Department of Veterinary Clinical Medicine at ERS in Las Vegas. Canisso conducted his placentitis research while at the University of Kentucky's Gluck Equine Embryo Recovery Center, in Lexington, and he now works in the Department of Veterinary Clinical Medicine at ERS in Las Vegas.