Nocardioform placentitis in three Thoroughbred mares in Kentucky
Christina Thompson, Karen Wolfsdorf, Bruce Christensen

School of Veterinary Medicine, University of California, Davis, CA; Hagyard Equine Medical Institute, Lexington, KY

Nocardioform placentitis is a preeminent cause of late term reproductive losses in Kentucky broodmares, with a sharp increase in cases during the 2017 breeding season. The following cases illustrate usual presentation, recommended diagnostics, treatments, and potential outcomes.

A six-year-old maiden, a 21-year-old multiparous, and a seven-year-old mare with her second pregnancy from the same Thoroughbred farm were presented at 8, 9, and 10 months gestation, respectively, for premature mammary development. On ultrasound the first two mares showed placental edema, thickened amnion with a closed cervix transrectally, and placental uterine separation transabdominally. Treatment included daily antibiotics, non-steroidal anti-inflammatory drugs, pentoxyphilline, and altrenogest. Antibiotic choice was based on current research in nocardiform bacteria sensitivity. Ultrasound evaluation of the mare presenting at 10 months was within normal limits; as a precaution a similar treatment regime was initiated. Variable outcomes were seen. The mare presented at 8 m aborted at 301 D. The mare presented at 9 m delivered an unthrifty foal at 309 D which was later euthanized. The mare presented at 10 m delivered a normal viable foal at 323 D. Gross pathology of the chorion was classic in all three cases and showed an avillous area at the base of the horns or body covered by a brown mucoid exudates. Histopathology showed blunted chorionic villi. Uterine cultures were all negative. Culture and cytology from the edge of the chorionic lesion from the viable foal were positive for nocardioform bacteria.

Nocardioform bacteria are environmentally ubiquitous but, despite active research, the source and route of transmission are not understood. Classic clinical signs include premature mammary development, no vaginal discharge, and separation of placenta noted transabdominally, but not transrectally. In these three cases, the onset of clinical signs progressively later in gestation correlated with more favorable outcomes. This potential correlation may direct initial discussion with clients of probable prognosis.

Keywords: Nocardioform bacteria, placentitis, abortion, pregnancy loss, broodmare

References