Unusual systemic response to artificial insemination in a maiden mare
D. Andrew Hestad, Robyn Wilborn, Aime Johnson
College of Veterinary Medicine, Auburn University, Auburn, AL

An eight year-old maiden Warmblood mare was presented to be bred by cooled-transported semen. Breeding management and insemination occurred without incident. However, 24 hours after insemination, the mare developed a fever, acute onset lameness, and severe distal limb edema. Differential diagnoses for these clinical signs included equine viral arteritis (EVA), equine herpes virus (EHV), influenza, and purpura hemorrhagica.

Because of the contagious nature of these differentials, the mare was immediately moved to isolation. Testing ruled out all differentials including EVA (mare and the stallion tested negative). Within 48 hours, all clinical signs resolved with supportive care, but the mare was not pregnant 14 days later. She was rebred to the same stallion during her subsequent estrus. Her cycle and insemination were without complication. Within 18 hours, the mare again developed a fever, acute onset lameness, and severe distal limb edema. A reaction to the seminal plasma of that stallion or extender used was suspected. Clinical signs resolved within 24 hours with minimal care. The mare became pregnant, so further diagnostics to confirm suspicions were not performed.

Adverse reactions to artificial insemination (AI) are rare in horses,1 and most are confined to the uterus.2 This case is unusual in that the clinical signs observed were systemic rather than local (uterus). On both occasions, one stallion was used and semen was shipped in the same semen extender, and both times the observed clinical signs mimicked other disease processes. Further diagnostics were not pursued due to the confirmed pregnancy. Thus an exclusionary diagnosis of a reaction, likely to a component in the semen extender, was suspected due to the repeatability of the clinical signs following insemination and the negative test results obtained. A definitive diagnosis will require infusing the mare’s uterus with extender alone, then unextended semen from this stallion, and evaluating each response.

References