Equine oviduct dysfunction
Samuel L. Gartland, Patricia L. Sertich
School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA

Although an uncommon cause of infertility, oviduct dysfunction should be considered when other etiologies are excluded. Pregnancy was never detected in a 5-year-old Standardbred mare despite good breeding management that included artificial inseminations with fresh semen from four fertile stallions during 12 estrous cycles over two breeding seasons. No genital tract abnormalities were apparent ultrasonographically and hysteroscopically and the mare had a normal karyotype. The mare was referred for a thorough examination of the genital tract and evaluation of the oviducts.

No significant abnormalities were detected on breeding soundness examination that included reproductive behavior evaluation, perineum assessment, palpation and ultrasonography per rectum, aerobic culture of an endometrial swab, histological evaluation of an endometrial biopsy sample, and visual and manual vaginal examination. Laparoscopic instrumentation for evaluation of the genital tract revealed a slight bulge at the junction of the ampulla and isthmus of the left oviduct. The ampulla and isthmus of the right oviduct was grossly distended and the mesosalpinx appeared inflamed with prominent blood vessels. Prostaglandin E$_2$ (0.25 mg; Prepidil Gel™, Pfizer Inc., New York, NY) was applied to the serosal surface of each oviduct to cause relaxation of the circular muscle of the oviduct and allow expulsion of oviductal accumulations.$^1$

Ovulation occurred two days later on the right ovary. After cloprostenol (Estrumate™, Schering-Plough Animal Health, Union, NJ) administration, cooled transported semen was inseminated, and human chorionic gonadotropin was administered. Ovulation on the right ovary was detected 13 days after the oviduct procedure. Periodic palpation and ultrasonography per rectum revealed one conceptus appropriate for the stage of pregnancy.

Since oviduct dysfunction is challenging to evaluate, it is possible that oviductal pathologies exist more often than documented.$^{2-5}$ Oviductal dysfunction should be on the list of differentials in cases where the cause of the infertility has not been determined.

Keywords: Horse, mare, oviduct, PGE$_2$ gel, laparoscope

References