15 hours: 773 pg/ml) human chorionic gonadotropin (hCG) treatment, anti-Müllerian hormone ([AMH] 96 ng/ml), estrone sulfate (11 ng/ml), and inhibit B (76 pg/ml). All but inhibit-B concentrations were above the upper limit of the laboratory reference ranges for a nonpregnant mare. Cytogenetic analysis revealed a 46, XY karyotype. Sex determining region of the Y chromosome (SRY) was identified by PCR analysis. A standing laparoscopic procedure was performed and a cryptorchid testis was identified on the right side of the abdomen and removed. A similar gonadal structure was absent on the left side. Histopathology of the excised right gonad revealed Sertoli cells, Leydig cells, and spermatagonia within degenerate seminiferous tubules with no evidence of spermatogenesis. Additionally, a nes or island of adrenal cortical tissue was noted histologically within the cryptorchid testis and epididymal tissue was noted adjacent to the testis. Immunohistochemistry confirmed AMH presence in Sertoli cells. Reevaluation 5 weeks after surgery revealed resolution of the stallion-like behavior and normal endocrine parameters. In summary, a phenotypic mare with stallion-like behavior was diagnosed as a monorchid, 64, XY, SRY-positive, disorder of sexual development (DSD). Monorchidism was diagnosed by a combination of laparoscopic exploration of the abdomen, identification and removal of 1 gonad, and a subsequent decrease in testosterone and AMH concentrations to that consistent with a gelding. Presence of ectopic adrenal cortical tissue was noted histologically within the cryptorchid testis was unexpected, but has been reported in gonads of horses and other species. Finally, diagnosis of DSD conditions was based on a combination of clinical signs, endocrine evaluation, chromosomal analysis, and histopathology.

Keywords: Mare, monorchidism, disorder of sexual development, karyotype, cryptorchid

References


Five-year mare with no history of foaling and early pregnancy loss had retained endometrial cups

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A 5-year, maiden Dutch Harness Horse mare, was presented for a routine breeding soundness examination prior to undergoing breeding management that would utilize cooled, shipped semen. Transrectal ultrasonographic examination revealed normal ovaries and uterus. Cervix appeared normal (speculum examination). Mare was in early estrus with a dominant follicle on the left ovary and a Grade II edema; samples for uterine culture and cytology were obtained. Cytology was normal and the culture had no growth. Due to schedule conflicts, mare was not scanned for another 5 days. At that time, mare appeared to have a corpus luteum (CL) on the right ovary - the opposite ovary from where the dominant follicle had been documented. Mare was examined 6 days later with plans to induce estrus (prostaglandin treatment): however, at this time she had a 40 mm follicle on the left ovary with the CL still present on the right ovary. Prostaglandin was not given. Four days later, the mare was again evaluated and appeared to have a CL on the left, small follicles on the right and moderate endometrial edema. Mare continued to be closely monitored due to erratic cycling with transrectal ultrasonography performed every other day. During owner consultation, owner maintained that the mare was sold as a maiden with no reported reproductive history. Over the course of her management, the mare proceeded to form a new CL without a true estrous cycle ~ every 7 days. At this time, blood equine chorionic gonadotropin (eCG) concentrations were determined (BET Labs) and were 2.9 IU/ml (normal 0.0 in nonpregnant mares), lending to a diagnosis of retained endometrial cups. Further investigation by the owner into the mare's history revealed that the mare was reportedly bred 2 years prior but never produced a foal. The owner was given the option of endometrial cup removal via laser ablation or chemical curettage; chemical curettage with kerosene was performed. Mare became appropriately cyclic immediately after treatment and was bred. Mare conceived on the first cycle following treatment and is currently ~ 210 days in foal. Endometrial cups produce eCG and form from the chorionic girdle of the fetal membranes in the mare at ~ 35 days and regress naturally at ~ 120 -150 days pregnancy. Endometrial cups will regress on their own at 120 - 150 days as the allantochorion takes over the role of progesterone production. Retaining endometrial cups past this point is abnormal but should be considered in mares with erratic cycling, incomplete estrous cycles, or luteinization of partly developed follicles. Diagnosis is best confirmed via detection of eCG. Although chemical curettage with kerosene is typically ineffective in mares with higher eCG concentrations, in the authors' experience it can be useful in treatment of mares with lower eCG concentrations.

Keywords: Mare, retained endometrial cups, equine chorionic gonadotropin

Management of postsurgical complications in a cat diagnosed with feline mammary fibroepithelial hyperplasia

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A 1-year, intact, American Domestic Shorthair queen was presented for complications associated with feline mammary fibroepithelial hyperplasia (MFH). On presentation, the cat had pyrexia, anorexia, dull mentation, and glandular enlargement along the entirety of both mammary chains. Mammary tissues were firm, edematous, and erythematous. Patient displayed hypersensitivity to palpation of the affected area and exhibited hunched posture. Approximately 3-cm, nonhealing ulcer was noted along midline at site of previous abdominal incision. The ulcer was black, malodorous, and diffusely necrotic. A 3-cm, healing incision was identified along the patient's right flank. Following its adoption, the patient was diagnosed as pregnant...