

unilaterally fixed embryos; probability of twin maintenance increases substantially with bilateral fixation.² The standard practice is to attempt to reduce the pregnancy to 1 vesicle after pregnancy diagnosis at days 14 - 15, prior to embryonic fixation. In this case, pregnancy diagnosis was not performed after natural breeding. The prolonged duration of the dystocia and autolysis of the fetuses resulted in severe deterioration of the mare's health. The majority (64.5%) of twin pregnancies maintained past 42 days result in late term abortion.³ This case illustrated the importance of close monitoring of follicular dynamics during breeding, early pregnancy diagnosis, and the need for client education on the importance of adequate breeding management for the welfare of the mare.

Keywords: Twins, abortion, dystocia, diaphragmatic hernia, breeding management

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Vulvar discharge associated with exogenous estrogen exposure in a spayed Weimaraner bitch

Camille Ogdon, Francesca Ivaldi, Firdous Khan

School of Veterinary Medicine, St. George's University, Grenada, West Indies

Vulvar discharge in spayed bitches is often associated with infections, chemical irritation, foreign bodies, anatomical defects, neoplasia, or an ovarian remnant.¹ Rarely, the discharge is associated with exposure to exogenous hormones.² A 4-year-old spayed Weimaraner bitch was presented for evaluation of inappetence and intermittent sanguineous vulvar discharge. The patient had elevated rectal temperature and respiration rate. Physical examination indicated presence of vulvar edema and a sanguineous vulvar discharge. Vaginal cytology revealed mainly parabasal cells, occasional intermediate cells, and abundant neutrophils and red blood cells. Ultrasonographic findings were suggestive of an enlarged, fluid-filled uterine stump, and a complete blood count (CBC) indicated leukocytosis, neutrophilia, and monocytosis. A uterine stump pyometra due to ovarian remnant syndrome was suspected and celiotomy performed. The uterine stump appeared grossly cystic and thickened. Histopathological evaluation of the removed uterine stump and ovarian pedicles revealed cystic endometrial hyperplasia and no ovarian tissue. Fifteen days after surgery, the patient presented again with a sanguineous vulvar discharge. Vaginal cytology revealed predominantly superficial cells, indicating estrogen influence.³ Differential diagnoses included ectopic ovarian tissue, exogenous estrogen exposure, or an adrenal

tumor. Further questioning of the owner revealed long-term use of a topical estrogen cream by a member of the household. Serial examinations were performed, and the cytology remained uniform, with predominantly superficial cells, indicating continued estrogen influence.³ Progesterone and anti-Müllerian hormone concentrations were determined to rule out ectopic ovarian tissue.^{4,5} Both tests came back negative. The absence of any clinical signs of adrenal disease coupled with the history of topical estrogen cream use in the household suggested that the patient's clinical signs were likely due to exogenous estrogen exposure. Several recommendations were made to prevent the exposure. Follow-up vaginal cytology and CBC evaluations were also recommended to monitor future estrogen exposure and possible adverse effects on the patient's health.

Keywords: Dog, cystic endometrial hyperplasia, exogenous estrogen, vaginal cytology

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Phimosis and preputial abscessation with draining tract in an Angus bull

Rachel Doenges, Heath King, Darcie Sidelinger

Mississippi State College of Veterinary Medicine, Mississippi State, MS

A 22-month-old, Angus bull presented for preputial laceration and phimosis with secondary cellulitis and ventral swelling cranial to the scrotum. The bull received 2 doses of ceftiofur crystalline free acid, 1 dose of transdermal Banamine, and a 5 day course of penicillin. A preputial abscess was suspected. Preputial lacerations commonly occur during breeding generally due to tissue rupture secondary to compressive force.¹ Preputial laceration and subsequent prolapse is more common in *Bos indicus* breeds due to do their redundant preputial tissue and pendulous sheaths. However, *Bos taurus* bulls are often capable of fully retracting preputial injuries leading to subsequent abscessation.¹ Prognosis is poor to guarded for return to breeding soundness.^{2,3} The bull was treated daily with hydrotherapy focused on the swelling. Epsom salt poultice was applied over the swelling and a sweat wrap was applied using a support sling. After 6 days of treatment, the abscess ruptured along a draining tract that terminated near the preputial orifice. Hydrotherapy, Epsom salt

poultice application, and the support sling were continued. The draining tract was lavaged daily through a catheter with a 10 liter carboy of normal saline containing 0.5% betadine solution. Silver sulfadiazine was infused along the draining tract daily. The draining tract improved briefly but the abscess recurred and ruptured a second time. The silver sulfadiazine infusions were discontinued and the lavage frequency was reduced to every other day until the draining tract could no longer be accessed. After 33 days in clinic, the bull was discharged. The bull returned 6 weeks after discharge for evaluation and breeding soundness examination. On electroejaculation, erection, protrusion, and ejaculation were successful. His semen was of good quality with 70% motility and 83% normal morphology. This case demonstrated successful medical management of a condition that commonly has a poor clinical outcome.

Keywords: Cattle, preputial laceration, retropreputial abscess

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Spermatic cord torsion in an Arabian stallion

Hannah Neer, Eduardo Santos Villanueva, Lauren Huggins, Thomas Bergstrom, Isabelle Kilcoyne, Marcos Perez-Nogues, Ghislaine Dujovne, Pouya Dini

Pritchard Veterinary Teaching Hospital, School of Veterinary Medicine, University of California-Davis, Davis, CA

Spermatic cord torsions greater than 180 degrees compromise the vascular supply to the affected testis and are a medical emergency in stallions.¹ A 5-year-old Arabian stallion presented for an episode of acute colic signs. Diagnostic work-up including physical examination, bloodwork, abdominal ultrasonography and transrectal examination did not reveal a cause for colic signs. No sign of pain or discomfort was noted on or after admission. The left testis felt enlarged on palpation and a pronounced tubal structure was noted in the left inguinal canal during transrectal palpation. However, the scrotal structures were in the correct orientation on palpation and ultrasonography. Scrotal ultrasonographic examination had an increased left spermatic cord diameter (6.5 cm) compared to right spermatic cord (3 cm). Doppler demonstrated a reduction in blood flow through the left spermatic cord and testis compared to contralateral structures. Although suggestive, the ultrasonographic findings did not confirm spermatic cord torsion (complete occlusion of

the cord). Therefore, it was elected to continue monitoring the stallion's condition. On the following day, scrotal ultrasonography demonstrated changes to the left testicular parenchyma with minimal to no blood flow through the left spermatic cord. Spermatic cord torsion of ≥ 360 -degrees was diagnosed based on these findings and a closed hemicastration was performed. Although potentially at higher risk for contralateral torsion,² the owner elected hemicastration to preserve the breeding potential of the stallion. The stallion had an uneventful recovery and was discharged 5 days following presentation. Ischemic (coagulative) necrosis was observed on histopathological analysis of the testicular parenchyma. Although 360-degree spermatic cord torsions occur infrequently, torsion should always be considered for stallions presenting with symptoms of colic. It is important to note that colic signs and pain can subside due to the necrotic/ischemic changes in ≥ 360 -degree torsions.

Keywords: Stallion, spermatic cord torsion, hemicastration

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