

of ITS reads were *Mucor circinelloides* and 8% *Pleospora herbarum*. Traditional culture method is of limited use to identify when antibiotic treatments can be discontinued due to antibiotics' inhibitory effects on culture results. The NGS results had several mixed bacteria and fungi that are more resistant to antibiotics. *Actinomyces* species was not identified, which we interpreted as a positive sign. The improved spermogram, negative culture, and lack of *Actinomyces* detected by NGS were indications that antibiotic treatment could be discontinued. Ideally, NGS should have been performed prior to the start of antibiotic treatment to be used as a baseline, and further studies are indicated to determine thresholds of potentially pathogenic bacteria on fertility. Availability of a commercial clinical NGS laboratory service for the veterinary industry is a potentially groundbreaking advancement. One potential use of this technology may be to identify when long-term antibiotic treatments can be safely discontinued.

Keywords: Stallion, *Actinomyces* species, next generation sequencing

Thromboembolic disorder in a postcesarean section bitch

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Pregnancy and the postpartum period substantially increase the risk for venous thromboembolism (VTE) in women, a disease that leads to pulmonary embolism and deep venous thrombosis. The most important risk factor contributing to a thrombotic event is the hypercoagulable state that occurs during a normal pregnancy, with the highest risk occurring the first 6 weeks postpartum. Risk factors among women are age (> 35-years-old), cesarean delivery, hypertension, heart disease, obesity, and the presence of infection postpartum. To the authors' knowledge, this condition has not been reported in dogs. A 3-year-old female intact primiparous Labrador Retriever presented as an emergency due to fever (104.3 °F), lethargy, and anorexia. History included dystocia due to secondary uterine inertia with fetal distress (stillborn fetus) that was resolved by emergency cesarean section 4 days prior to presentation. On initial evaluation, the patient was quiet and responsive, obese with a body condition score of 8/9, and had a moderate amount of lochia with no foul-odor. Bloodwork revealed a normocytic, normochromic, regenerative anemia (hematocrit of 27%, absolute reticulocytes $99.6 \times 10^3/\mu\text{l}$), leukocytosis with a neutrophilia characterized by a left shift and monocytosis (WBC $43.6 \times 10^3/\mu\text{l}$, reference interval [RI] 5.7 - 14.2; segmented neutrophils $35.8 \times 10^3/\mu\text{l}$, RI 2.7 - 9.4; band neutrophils $0.4 \times 10^3/\mu\text{l}$, RI 0.0 - 0.1; monocytes $2.6 \times 10^3/\mu\text{l}$, RI 0.1 - 1.3), hyperproteinemia (8.0 g/dl, RI 5.9 - 7.8) and hypoalbuminemia (1.8 g/dl, RI 3.2 - 4.1). Considering the clinical condition, medical intervention and hospitalization for further diagnostic testing were pursued. Medical management consisted of intravenous plasma-lyte A fluids (60 ml/kg/

day), ampicillin/sulbactam (Unasyn, 30 mg/kg every 8 hours), and maropitant citrate (Cerenia®, 1 mg/kg every 24 hours). A disseminated intravascular coagulation panel indicated significantly increased D-dimers (4965 ng/ml, RI 0 - 575), decreased antithrombin III activity (50%, RI 65 - 145), and an increased aPTT (19.6 seconds, RI 8.5 - 15.5). Abdominal ultrasonography revealed a diffusely, severely mottled spleen with innumerable hypoechoic regions of acute, multifocal infarction, suggesting the presence of splenic infarcts and no evidence of peritonitis. That evening, the patient developed labored breathing with a respiratory rate of 36 breaths per minute and pulse oxygenation of 93% (RI > 95%). An arterial blood gas revealed an alveolar-arterial oxygen gradient of 30 mmHg (RI 10 - 25). These findings were concerning for pulmonary thromboembolism. The patient improved after 24 hours of supplemental oxygen, and the supplementation was discontinued. Subsequent echocardiogram revealed no evidence of pulmonary hypertension. The patient was discharged 48 hours after hospitalization with oral amoxicillin/clavulanate (13.75 mg/kg every 12 hours for 14 days). Considering the clinical manifestation and increased risk reported with cesarean delivery and peripartum obesity in women, it was presumed that the pregnancy-related hypercoagulable state and postpartum period led to the development of a VTE in the postcesarean section bitch.

Keywords: Mare, pregnancy, placenta, cervix, ultrasonography

Funding: Cesarean section, hypercoagulable, pulmonary embolism, venous thromboembolism

Polled intersex syndrome in a Finnish Landrace lamb

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An apparently healthy, 4-month-old female Finnish Landrace lamb was presented for the presence of female and male external genitalia. The lamb was polled and a twin to a normal female. On initial examination the lamb had a short anogenital distance of 3.5 cm and a normal appearing vulva with a mildly enlarged clitoris. Left gonad was descended and palpable in the inguinal area, whereas the other gonad was suspected to be retained intra-abdominally. Left inguinal ring was severely dilated and the descended gonad could be moved freely intra- and extra-abdominally. Abdominal ultrasonography revealed a retained intra-abdominal right gonad that appeared testicular in origin with a hyperechoic mediastinum testis and a less echogenic parenchyma as seen in a normal testis. A fluid filled uterus was also identified, but ovaries were unable to be identified. Lamb underwent a midline exploratory laparotomy with a bilateral castration/hysterectomy. Uterus was identified and the uterine horns were followed to the location of the ovaries where testicular appearing structures with a pampiniform plexus