

MIXED ANIMAL SESSION

Infertility, pregnancy, and concurrent pyometra in a dog

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A 3-year old Greater Swiss Mountain dog was presented for breeding management. The patient had a history of 2 previous failed pregnancy attempts, 1 with ovulation timing and vaginal insemination, and the other with ovulation timing and transcervical insemination. Regardless of failure to become pregnant, the owner wanted to breed once more due to high sentimental value. The patient was placed on enrofloxacin and carprofen at LH surge until 6 days postovulation. The patient had a negative vaginal culture at last breeding. Based on ovulation timing, 2 transcervical inseminations were performed with fresh collected semen. At 25 days postovulation, the patient was confirmed pregnant on abdominal ultrasonography. Only 1 fetus appeared to be viable, 1 fetus appeared to be in the early stages of resorption with no heartbeat, and 5 other resorptive sites were identified. The patient was placed on amoxicillin. Taking into account the patient's history of infertility, a concern for hypoluteoidism prompted us to assess the patient's serum progesterone concentrations and were elevated (31.42 ng/ml). Due to owner's concern, progesterone concentrations were determined 3 days later. Progesterone concentration decreased to 14.38 ng/ml. Due to this unexpected degree of decline in 3 days, we continued to monitor progesterone concentrations throughout pregnancy. Progesterone concentrations remained adequate for the rest of pregnancy. At 48 days postovulation, ultrasonography revealed 1 viable fetus and a fluid-filled uterus. The patient was asymptomatic for a pyometra, and the owner elected to maintain the pregnancy. The antibiotics were switched to amoxicillin/clavulanate potassium; patient was continually monitored via rectal temperature assessment and ultrasonographic examinations, and for behavioral changes. At 63 days postovulation, an elective cesarean section was performed. The fetus was viable and resuscitated quickly. Substantial amount of purulent material was present in the uterus (> 1 liter). The serosal surface of the uterus did not have any defects and appeared normal. Pathological diagnosis, based on a tissues sample from the right uterine horn, was 'focal extensive eosinophilic endometritis and multifocal moderate lymphoplasmacytic endometritis/myometritis with multifocal mild cysts endometrial hyperplasia'. Infertility in this bitch was accompanied by multiple lesions and this case demonstrated

that most 'missed breeding' may be due to an underlying cause, even in a young, otherwise healthy bitch.

Keywords: Pyometra, infertility, cystic endometrial hyperplasia, pregnancy

Factors affecting survival and future foaling rates in Thoroughbred mares with hydrops

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Prognosis for life and future fertility in broodmares following hydrops is reportedly good, and the role of inheritance in the development of hydrops has been suggested but lacks large-scale evidence. Aims of this case series were to evaluate the prognosis for survival and fertility in mares following hydrops diagnosis and to attempt to identify if inheritance is a predisposing factor. Thirty mares presented with hydrops were included. Data collected included history (pregnancy and sire of the foal), clinical findings at presentation and throughout hospitalization (complications, treatments provided, and survival to discharge) and future foaling rates. Ninety percent (90%) of mares survived (hydrallantois: 94.7%; hydramnios: 75%) and 95.2% of mares successfully had a future foal, of which 75% foaled the first year following hydrops. No reoccurrence of hydrops was identified, despite being bred back to the same stallion. Transcervical gradual fluid drainage was associated with improved ($p = 0.05$) survival. Complications associated with poor survival and decreased future foaling rates included hypovolemic shock ($p < 0.005$ and $p = 0.010$, respectively), hemorrhage ($p < 0.005$ and $p = 0.025$, respectively), peritonitis ($p < 0.005$ and $p = 0.01$, respectively) and abdominal wall rupture ($p = 0.01$ and $p = 0.005$, respectively). Laminitis was associated with poor survival ($p < 0.05$). One mare suffered a uterine tear and was euthanized. These results suggest that prognosis for survival, future breeding and fertility following a diagnosis of hydrops is good, provided the hydrops is diagnosed and treated appropriately and no damage to the reproductive tract or body wall occurs. These data did not provide evidence for heritability and further investigation is required.

Keywords: Mare, pregnancy, hydramnios, hydrallantois, fluid drainage