Ovarian cyst, mastitis, pyometra, and cardiac disease in a German Shepherd bitch
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An 8 month old German Shepherd (GS) bitch was evaluated at the University of Florida Veterinary Medical Teaching Hospital (UFVMTH) for a prolonged first estrous cycle of nine weeks duration. Previously, at 5 months of age, the bitch was diagnosed at the UFVMTH with a potentially lethal GS inherited ventricular cardiac arrhythmia. Mexiletine 150 mg, po, TID, and sotalol (β blocker) 40 mg, po, BID, were administered in an effort to manage the arrhythmia. Upon presentation, the dog was active, bright, alert, and responsive. The arrhythmia was not evident. Mammary glands were small, non-lactating, and palpably normal. Moderate serosanguineous discharge from an enlarged turgid vulva was present. Vaginal epithelial cytology showed complete cornification, the presence of red blood cells, bacteria, and no evidence of white blood cells. Brucella canis serology was negative and serum progesterone (P4) was <0.2 ng/ml. Abdominal ultrasonography revealed within the left ovary, a 3.4 x 2.4cm thin walled anechoic structure, consistent with a follicular cyst, while the right ovary was normal. The uterus did not contain luminal fluid, but was thickened, suggesting hyperplasia. Gonadotrophin releasing hormone, 45 microg, im, was administered once daily for four days. Additionally, human chorionic gonadotropin, 1000 Units, im, was administered on days one and three of treatments. Eleven days later, the bitch was re-examined due to severe focal mastitis with spontaneous abscess rupture of the right caudal gland. Slight serous discharge from a moderately enlarged vulva was present. Cornification was again complete, and neutrophils were not observed. Progesterone was 2.9 ng/ml, and the left ovarian cyst was 3.2 x 2.9 cm, with echogenic content. Specimens for aerobic culture were obtained from the ruptured gland, and cefovecin 232 mg, im, was administered. One week later, the mastitis had resolved, the vulvar discharge had ceased, the vaginal cytology was no longer cornified, contained non-degenerate neutrophils, and rare metestrum cells, indicating diestrus, and serum P4 was 4.9 ng/ml. Six weeks later the bitch suffered an open pyometra and emergency ovariohysterectomy was performed at the UFVMTH with uneventful recovery; arrhythmia was not present. Six months later, at seventeen months of age, the dog presented for fever, lethargy, and vomiting. A 4 cm intra-abdominal abscess was identified on ultrasonography and aspiration cytology and exploratory laparotomy recommended. The owners elected humane euthanasia.

Keywords: Ovarian cyst, mastitis, pyometra, abscess, cardiac arrhythmia