## Management of abortion and mummification due to T-cell lymphoma in a Labrador retriever

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A pregnant 1.5-year old Labrador retriever was presented at 45 days gestation for brown vaginal discharge. A physical examination was normal except for the presence of mucoid, non-odorous, brown vaginal discharge. Ultrasonography revealed a small fetus near the cervix that lacked a heartbeat. All other fetuses were normal. A vaginal culture was obtained and treatment with amoxicillin trihydrate/clavulanate potassium was initiated.<sup>1,2</sup>

The vaginal discharge lessened initially, but increased again by 49 days gestation. Mammary development was also noted at this time. Culture revealed a heavy growth of Proteus mirabilis and antibiotic therapy was changed to cefpodoxime. At 52 days gestation, the vaginal discharge decreased, but a second deceased fetus was noted on ultrasonography and radiography. Tests for canine herpes virus and Brucella canis were negative. Despite these results, acyclovir was initiated and cefpodoxime was continued. The dam remained clinically healthy and afebrile. At 60 days gestation, decreased fetal heart rates indicated fetal stress. Fetal kidney definition and intestinal peristalsis were present on ultrasonography. Six viable puppies and one fetal mummy were delivered via cesarean section.

One month later, the dam was presented for vomiting and distended abdomen. Chemistry profile, complete blood count, abdominal ultrasonography, radiographs, and abdominocentesis suggested lymphoma. Severe adhesions throughout the abdomen were found on exploratory laparotomy, and the patient was euthanized without recovery. Necropsy results confirmed a final diagnosis of T-cell high grade lymphoma with metastasis to most abdominal organs. There is evidence in rodents and horses that estrogen and progesterone may influence the growth and development of lymphoid malignancies. The frequency and pathology of neoplasia causing canine abortions and fetal mummification is not often discussed. 1,2 This case represents the importance of management of undiagnosed abortion and fetal demise, with an outcome resulting in healthy offspring, but a life-threatening condition for the dam.

**Keywords**: Lymphoma, pregnancy, abortion

## References

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