



## Developing a Better Tool for Assessing Bloat Prognosis Elizabeth A Rozanski, DVM, Tufts University

### RESULTS: Researchers Identify Clotting Abnormalities and High Euthanasia Pretreatment Rates in Dogs Diagnosed with Bloat

Gastric dilatation-volvulus (GDV), commonly known as bloat with stomach rotation, frequently occurs in deep-chested, large and giant breed dogs and has a high mortality rate. The twisting of the stomach on its axis prevents food, gas or fluid from escaping and disrupts blood circulation to and from the stomach. Although many dogs do well with urgent stabilization and surgical correction, other dogs develop complications, such as abnormal heart rhythms, pneumonia and clotting disorders.

The survival rate for GDV after treatment and intervention is only 70 to 80 percent. With the help of Morris Animal Foundation funding, researchers from Tufts University reviewed the medical records of nearly 500 dogs with GDV. They compared laboratory values of dogs that survived with values for those that did not to determine if certain laboratory results correlated with survival.

The researchers did not find any specific test or combination of tests that correlated to survival or non-survival. However, they did find that one in five dogs diagnosed with GDV were euthanized before treatment was attempted, and euthanasia was the leading cause of death in these patients. The reasons for this vary and likely include such factors as patient age, presence of pre-existing conditions and cost of care. This study was one of the first to include pretreatment decisions as part of the overall mortality rate of the disease.

The researchers also evaluated heart function and clotting data from 28 dogs. They noted that despite a high incidence of heart rhythm disturbances, significant injury to the myocardium (heart muscle) was uncommon. They did, however, measure high levels of NT-pro BNP, a cardiac biomarker used in the screening and diagnosis of acute congestive heart failure and plan to further investigate the significance of this finding.

Data from client-owned dogs also showed that clotting disturbances are commonly found in dogs with GDV. The researchers used a newly developed test to monitor affected dogs over time. Their findings show that dynamic changes in blood-clotting ability occur as GDV progresses within the same patient.

Together, these findings will help veterinarians guide their clients to make better treatment decisions for their pets. The research has also suggested areas for further study of this complex but common problem of dogs. (D09CA-502)