Gastric dilatation-volvulus (GDV) is a surgical emergency that occurs when the stomach distends with gas and rotates along its longitudinal axis, causing cardiovascular compromise and poor tissue perfusion; it is most frequent in large-breed, deep-chested dogs. Of 101 cases evaluated in this study, 85% survived to discharge. Most preoperative thoracic radiographs were taken to screen for metastatic disease. A small vena cava, esophageal dilation, and microcardia were the most common radiographic findings. Aspiration pneumonia, cardiomegaly, pulmonary nodules, pulmonary edema, sternal lymphadenopathy, and pulmonary bullae were less common.

Previous reports have shown that preoperative elevated lactate, poor response of lactate to treatment, an abnormal ECG, and time from presentation to surgery are negative prognostic indicators. Once controlled for lactate concentration, dogs without cardiomegaly on preoperative thoracic radiographs had 10.2× greater odds of surviving to discharge than did dogs with identified cardiomegaly. The authors recommended preoperative thoracic radiographs for a more accurate prognosis before surgical correction of GDV. Patient status and time to obtain thoracic radiographs (ie, delaying surgery) must all be considered.

**Commentary**

Past literature associated with GDV has primarily centered on preoperative lactate and its correlation with gastric necrosis. This study focused on another preoperative finding: thoracic radiographs. Thoracic radiographs are typically considered for pulmonary metastasis screening in middle-aged to older, large-breed dogs. Cardiovascular screening is equally important. Often presenting in distributive shock from an obstruction to blood flow caused by the twisted and gas-filled stomach, these patients typically have a small vena cava and microcardia. Conversely, cardiomegaly on thoracic radiographs would be unexpected and may suggest potential underlying cardiac disease, thus providing valuable preoperative information before IV fluid therapy and anesthesia.

**Source**


**For More**

To read more about gastric dilatation-volvulus, see Gastric Dilatation-Volvulus, a Management Tree, by Dr. Lisa L. Powell in the May 2013 issue or online at cliniciansbrief.com/gastric-dilatation-volvulus-algorithm