

Gastric Dilatation Volvulus (GDV)

Extended version

Presentation:

Classic case:

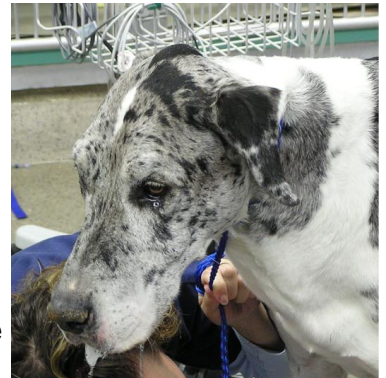
BIG breed dog, **bloated & retching**- trying to throw up, but **nothing comes out**

Signs vary, depending on degree of rotation, 2ndary shock, & toxemia

- Vomiting, retching, salivation, abdominal distention
- Tympany, **pain**, stands stretched out;
- Eventually weakness/collapse, shock
- Usually older, deep chested, large/giant breed dogs

Risk factors:

- **Big breed**
 - Great Dane, Weimaraner, St. Bernard, std Poodle
 - Gordon/Irish setters, Old Eng Sheepdog
- **Nutrition/management:**
 - Once a day feeding, elevated bowls
 - Eating very fast or large volume of water or food
 - Exercise after eating
 - Dry food with oil/fat a main ingredient
- **Other**
 - Narrow, deep-chested conformation
 - Underweight
 - Fearful temperament, stress
 - Increased incidence Nov-Jan (US)

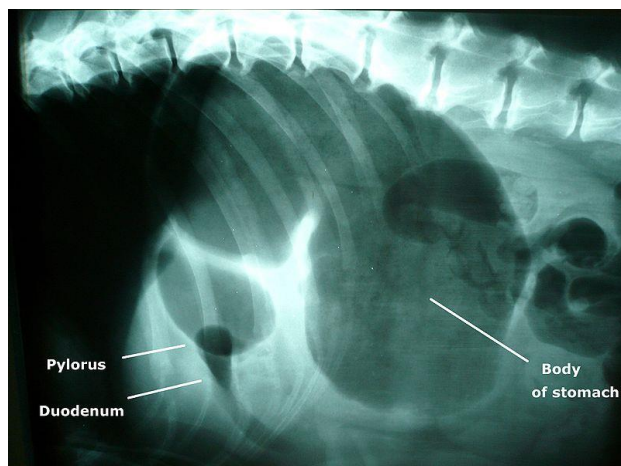


Differential DX:

Bloat, SI volvulus, splenic torsion, diaphragmatic hernia w/stomach in chest

Test of Choice:

Physical exam & **Radiographs** (double-bubble, “popeye” or C-sign)



“Double-bubble, you’re in trouble”, “Popeye’s arm” or C-sign
Gastric dilatation volvulus, lateral



Gastric dilatation, DV view

Gastric-Dilatation-Volvulus (GDV)

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Rx of Choice:

1.) Immediate shock therapy - **FIRST Give IV fluids BEFORE or during diagnostics**

- **Multiple IV fluids access**, lg volume crystalloids &/or hypertonic saline, &/or colloid
- **Pass orogastric tube CAREFULLY**, decompress if possible this way
- Trocarize stomach in extreme cases

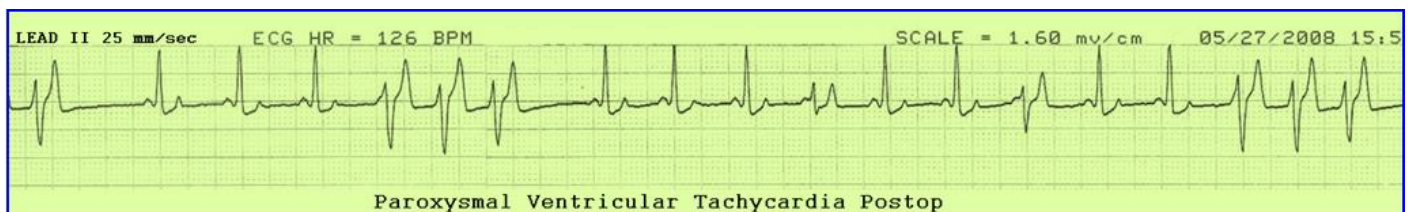
2.) Surgical correction - derotate, gastropexy, +/- splenectomy.

3.) Medical therapy must address:

- Hydration
- Blood pressure
- Electrolytes
- Acidosis
- Cardiac arrhythmias; Usually ventricular- Lidocaine continuous rate infusion (CRI)

4.) Post-op care IS critical – Complications are **MANY** and **SERIOUS!!**

- Electrolyte imbalances: K+, Mg+ increase risk of arrhythmias
- Splenic torsion, reperfusion injury
- Esophagitis, gastric ulcers
- Aspiration pneumonia, acidosis
- Ileus, peritonitis
- DIC



Prevention:

- Feeding management
 - Small, low fat meals
 - Minimize exercise after meals
 - Minimize water after exercise
- **Prophylactic gastropexy** in appropriate breeds
- **Do NOT breed dogs that have had GDV**
- **Do NOT breed dogs w/ relative w/ hx of GDV**

Gastric-Distention-Volvulus (GDV)

Extended version

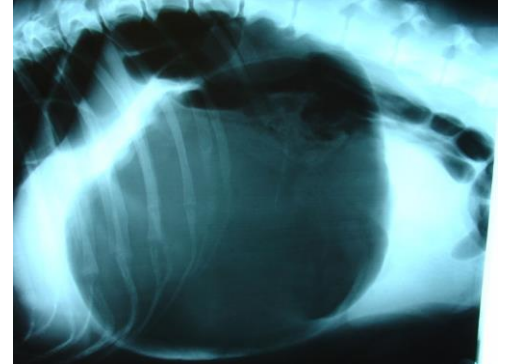
Prognosis: **DEPENDS.....**

Depends on degree of ischemic damage & complications post-op.

- 15% mortality in Sx patients
- ↑s to 30% with gastric necrosis
- Arrhythmias do NOT affect mortality

Mortality rates **IN**crease with

- High lactate
- Delay of 5 hrs or more to admission
- Hypothermia at admission
- Hypotension anytime



Gastric dilatation. DV view.

PEARLS: **LIFE-THREATENING EMERGENCY.** Restore blood flow **ASAP**

- **Give IV fluids BEFORE or simultaneous w/** diagnostics
 - Have anesthesia/surgery ready.
- Successful passage of orogastric tube DOES NOT rule out presence of GDV
- Classic signs on Rads **not** always present.
- Expect cardiac arrhythmias
- **Post op therapy just as important as preoperative and surgical Tx.**

Refs: Cote's Clin Vet Advisor-Dog and Cat 2nd ed., pp. 436-8, Bonagura, Twedt's, Kirk's Current Vet Therapy XIV, pp. 77-82, Pasquini, Guide to Sm An Clinics, 3rd ed. p 45, Merck Vet Manual online, Gastric dilatation volvulus, DV radiograph, ECG images courtesy, Dr. Jennifer Adams, Lat. radiograph images courtesy, Dr. Joel Mills

My Notes: