



January 2014

Dr. Norman Ackerman served the University of Florida, College of Veterinary Medicine with distinction as Professor of Radiology from 1979 to 1994. A concerned teacher of veterinary students and residents of all disciplines, Dr. Ackerman also reached the veterinary scientific community through his writing. His numerous clinically pertinent publications are still today a vital part of the veterinary literature; therefore, it is appropriate this site perpetuates Dr. Ackerman's dedication to teaching. This site is presented in recognition of Dr. Norman Ackerman and his contributions to the field of veterinary diagnostic imaging.

Sponsorship of the display supports the Dr. Norman Ackerman Memorial Fund, dedicated to the teaching of diagnostic imaging residents at the University of Florida College of Veterinary Medicine.

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- Bruce
  - 9 year old MN Rottweiler Dog

## Dr. Norman Ackerman Memorial Radiography Case Challenge

BRUCE, 9 YEAR OLD MN ROTTWEILER DOG

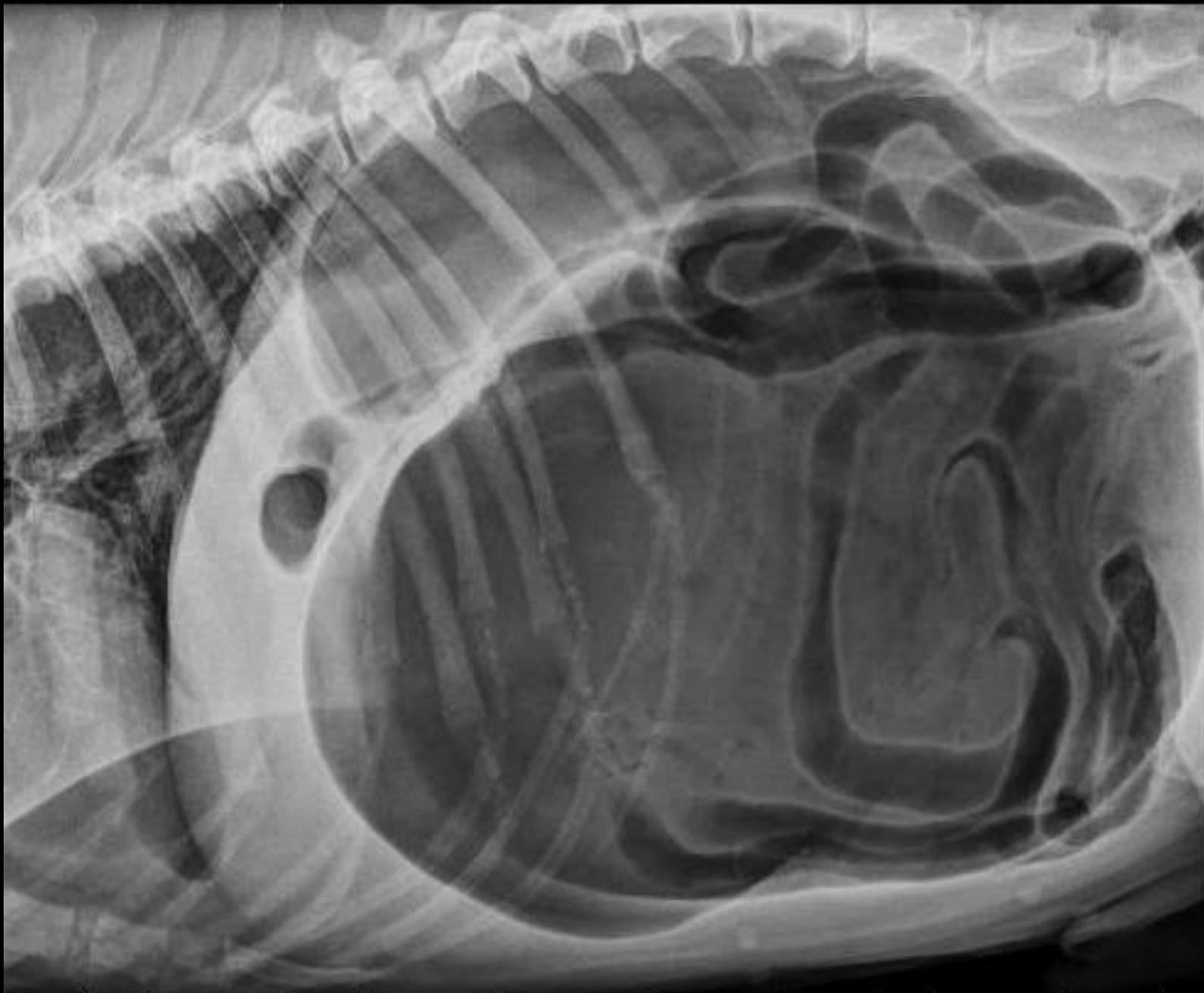
DR. NORMAN ACKERMAN MEMORIAL





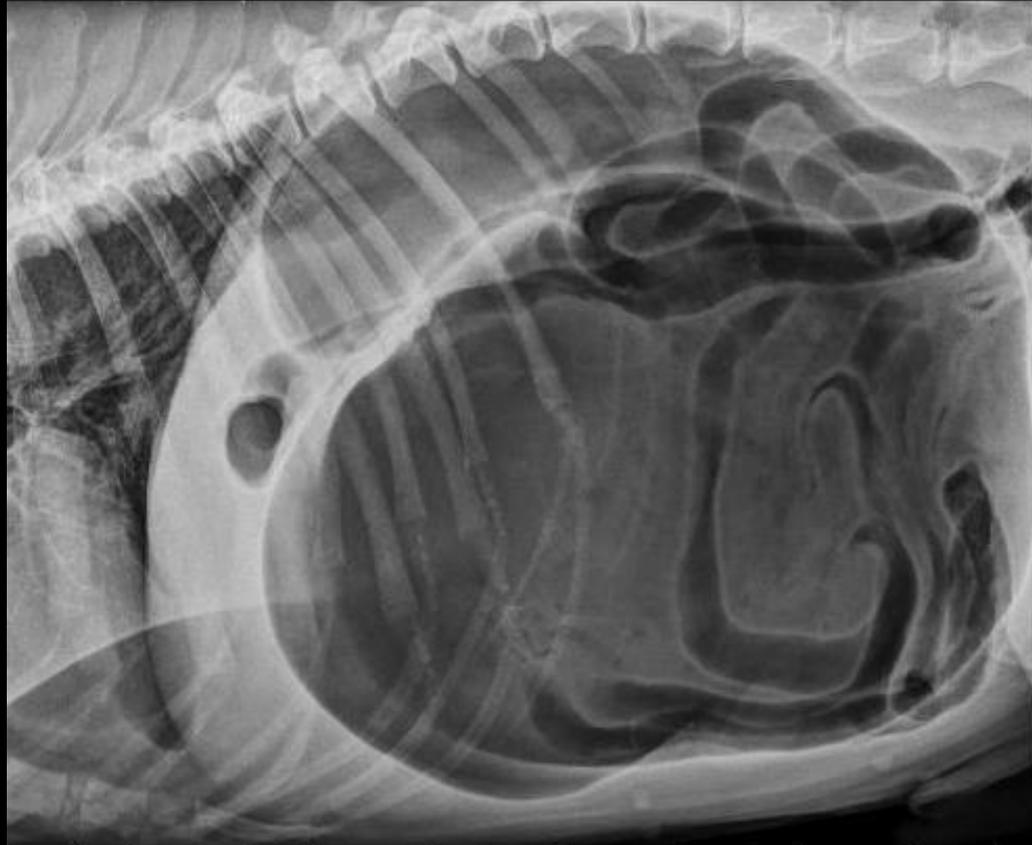
# History and case presentation

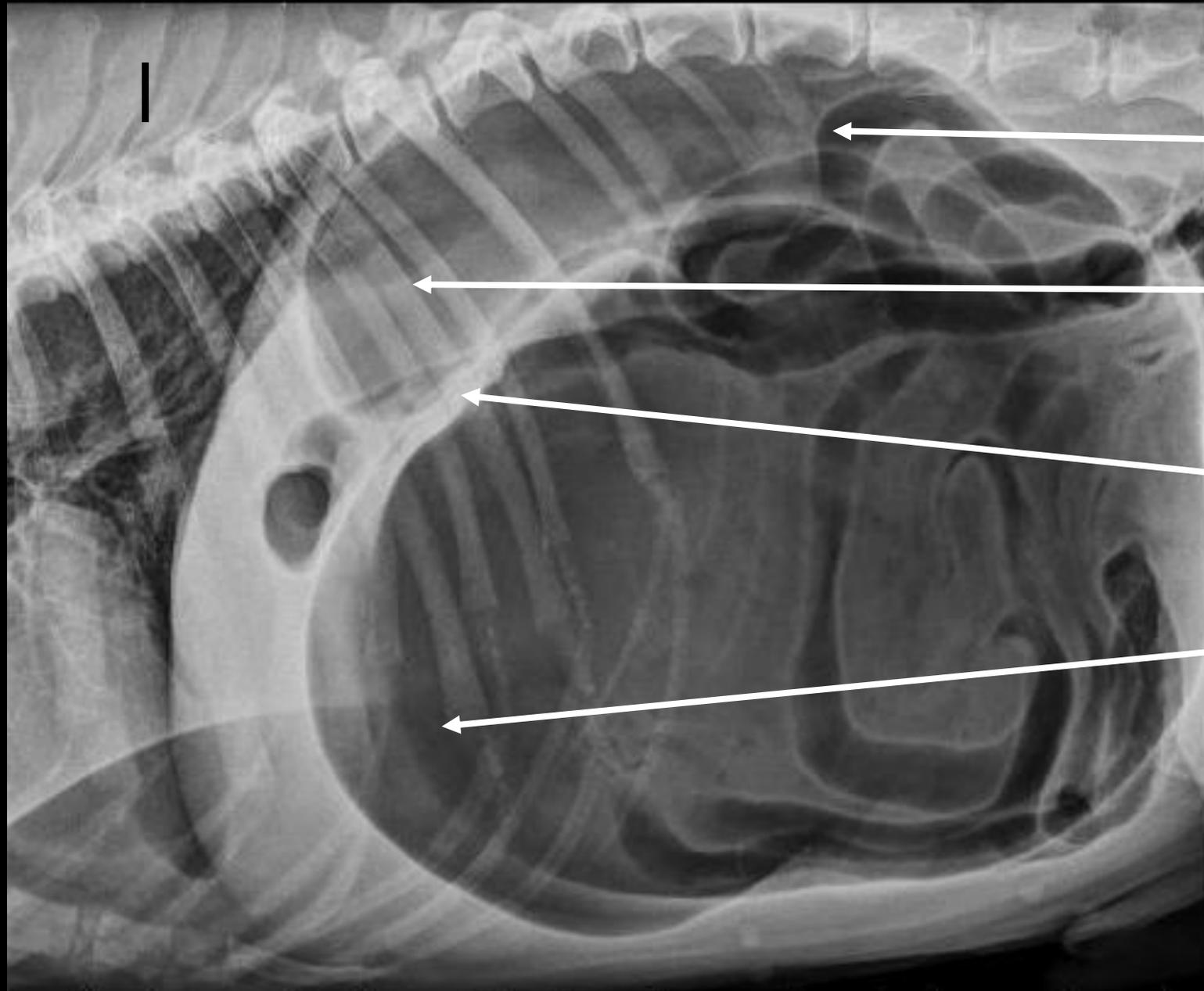
- Bruce presents to your emergency clinic with a 2 hour history of dry retching and abdominal distension.
- When he comes into your clinical he is restless and pacing.
- On physical examination, you detect severe abdominal distension.
- You order abdominal radiographs





There is craniodorsal displacement of the pylorus relative to the fundus of the stomach with evidence of compartmentalization





Dilated  
small  
intestines

Pylorus

Compartmentalization

Fundus



# Conclusion

You have found a severely gas distended stomach, with craniodorsal displacement of the pylorus relative to the gastric fundus and compartmentalization of the stomach. These signs are compatible with a gastric dilation volvulus (GDV).





# Case Follow up

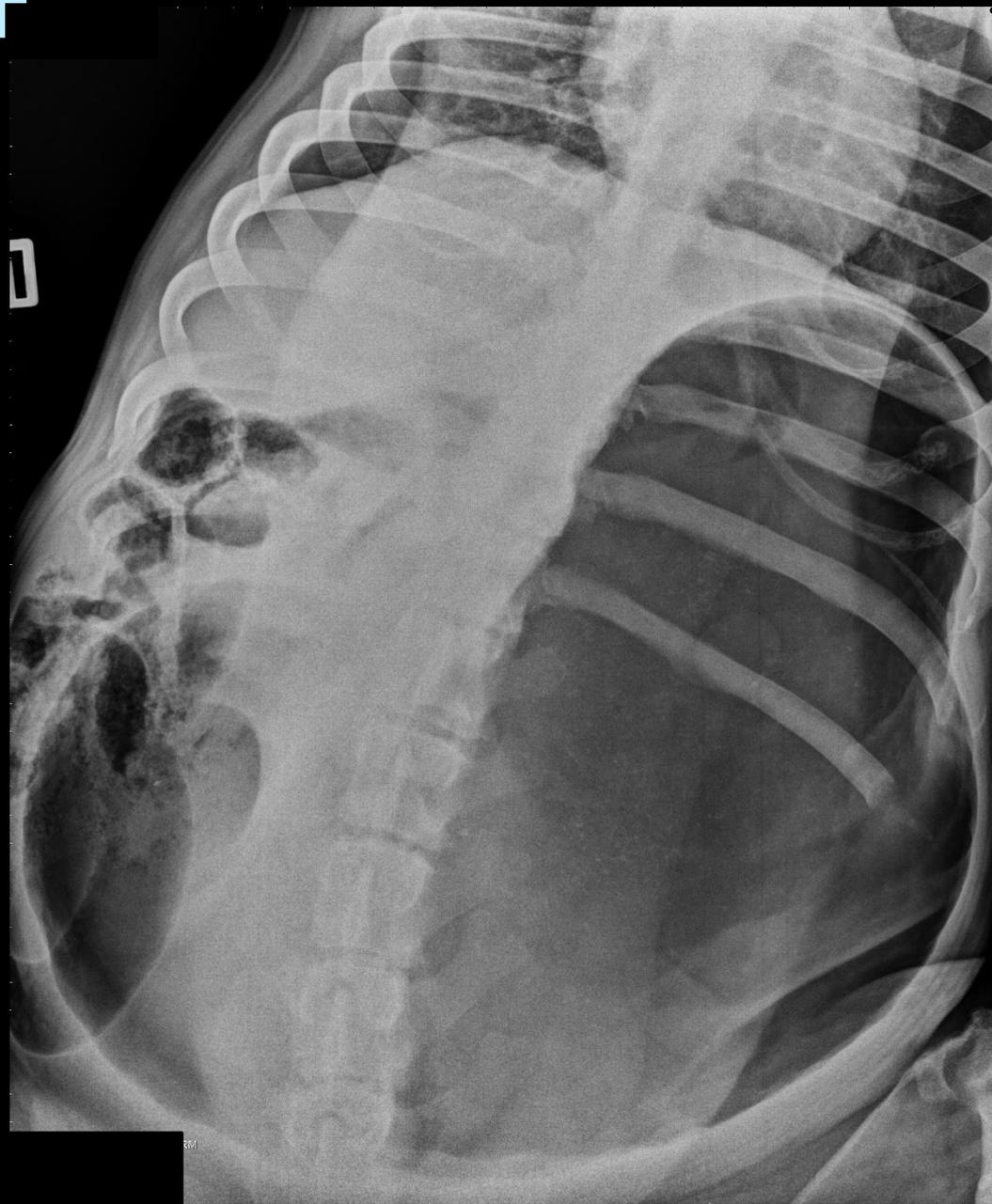
- You advise the owners that Bruce's prognosis is guarded and immediate surgery is warranted. The owner's agree to surgery.
- You initiate stabilization procedures such as fluid therapy, analgesia, orogastric intubation and transabdominal gastrocentesis.
- You take Bruce to surgery, examine the stomach and spleen for necrosis, correct the volvulus and pexy the stomach to the body wall. Bruce recovers well.



# Atypical GDV

- Be aware that GDVs can present with varying degrees of volvulus and may not present with the typical “popeye arm” shape of the stomach. These cases can be harder to diagnose, but flipping the dog over and taking further radiographic views, using radiographic information combined with diagnostic information (eg ability to pass a orogastric tube and deflate the stomach), clinical signs and exploratory laparotomy will help you to make the diagnosis. See the enxt slide for an example of an atypical GDV presentation
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# Storm - 6yo Bull Mastif



# Gastric dilation volvulus

- Gastric-dilation volvulus (GDV) is a life-threatening condition in dogs during which the stomach dilates and rotates around its axis. Mortality rates from 33-68% are reported.
- GDV occurs most commonly in large and giant breed dogs such as Great Danes, Rottweilers, German Shepherd dogs, Boxers and Standard Poodles.
- Clinical signs include unproductive retching, restlessness, pacing, salivation, respiratory distress, depression, abdominal pain and abdominal distension. Signs can progress rapidly.
- Early stabilization of shock with decompression of the stomach is imperative.
- The right lateral radiographic view should be the first view that you take because the pylorus becomes air-filled and displaces to the left. Because gas rises, the right lateral view is most likely to show the typical “popeye arm” shape of the stomach. It is important to check for pneumoperitoneum on radiographs as this may indicate gastric rupture.