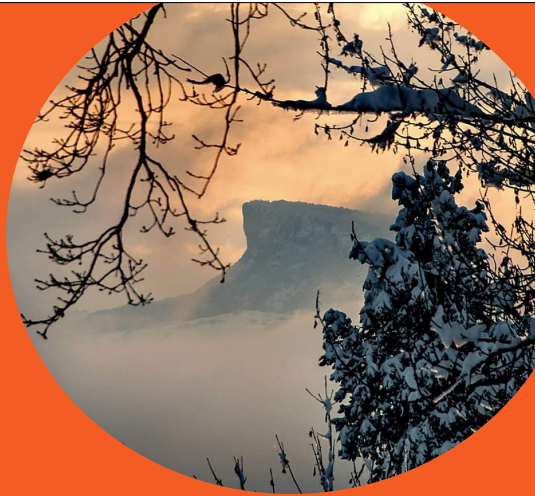


Il dettaglio addominale  
nell'addome  
acuto: radiologia o  
ecografia?



Diagnostic Mindset



Giliola Spattini  
DVM, PhD, DECVDI

## Why radiology is used in medicine?

- Because they have interactions with the biological tissues
- Because the fat is different than soft tissue :-)
- Unfortunately fluid and parenchymas have the same opacity :-)

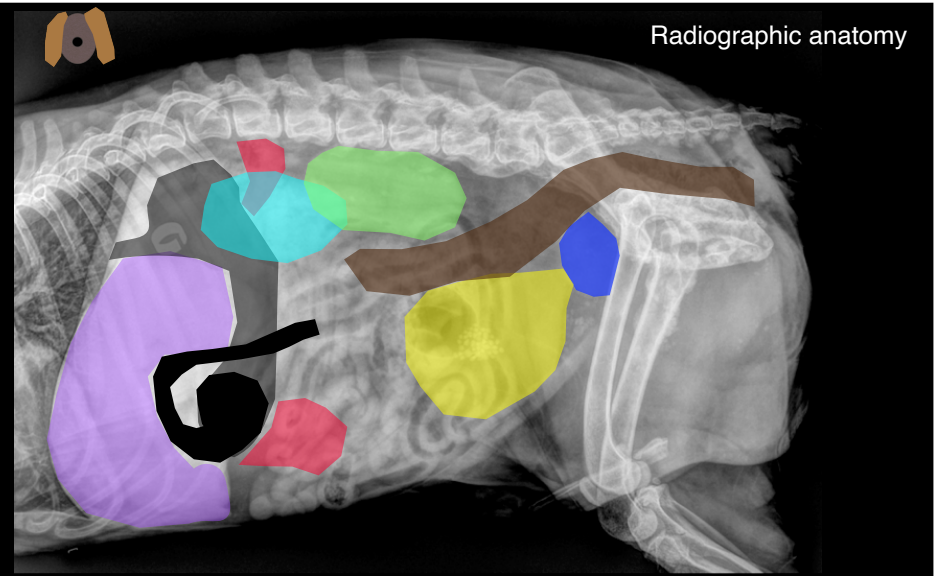


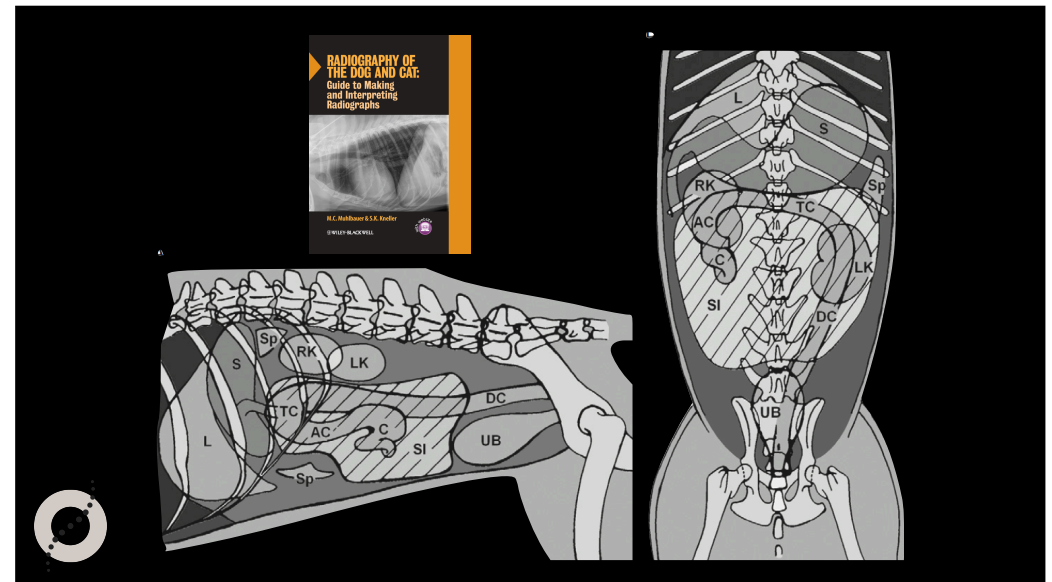
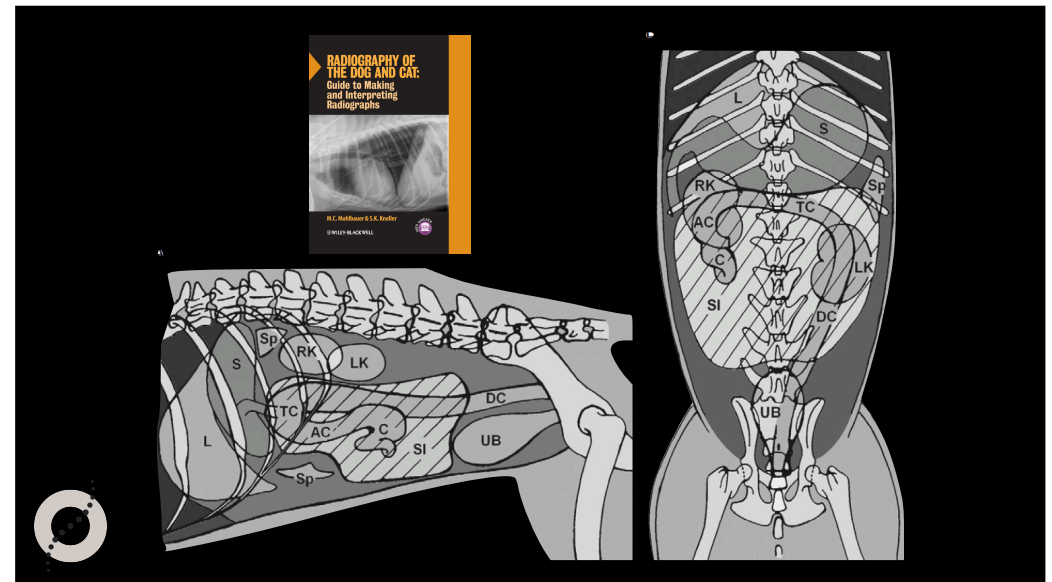
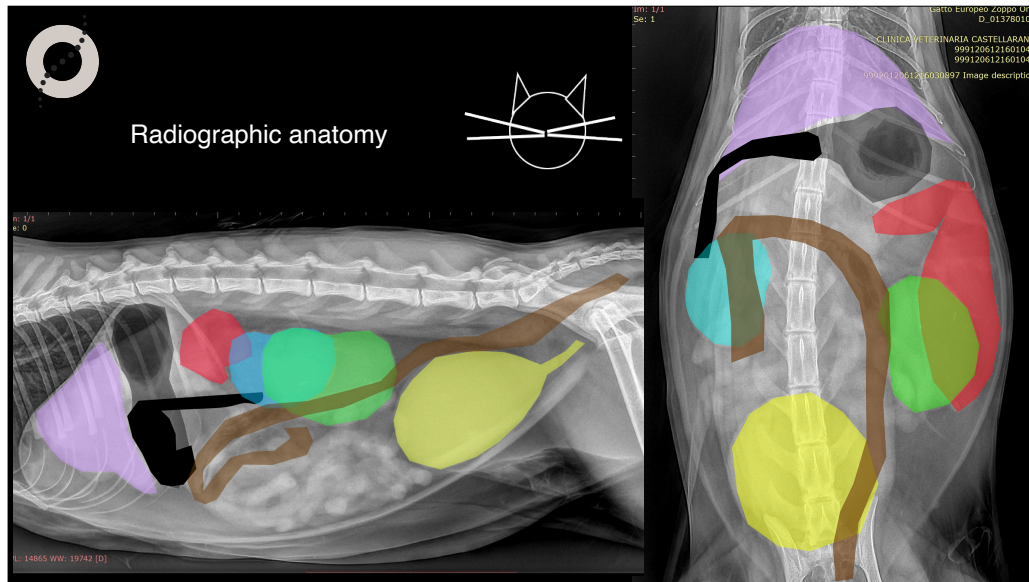
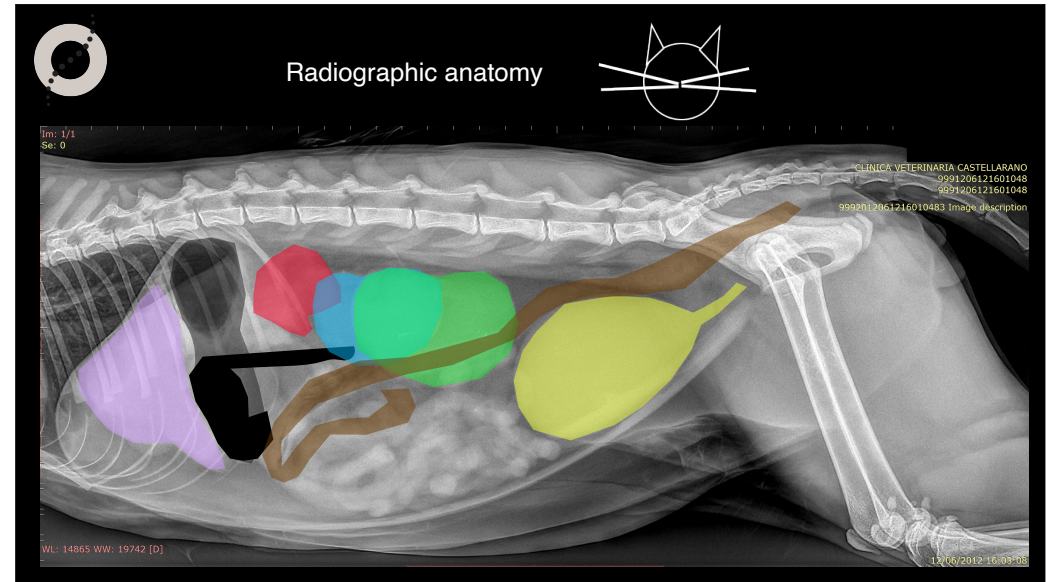
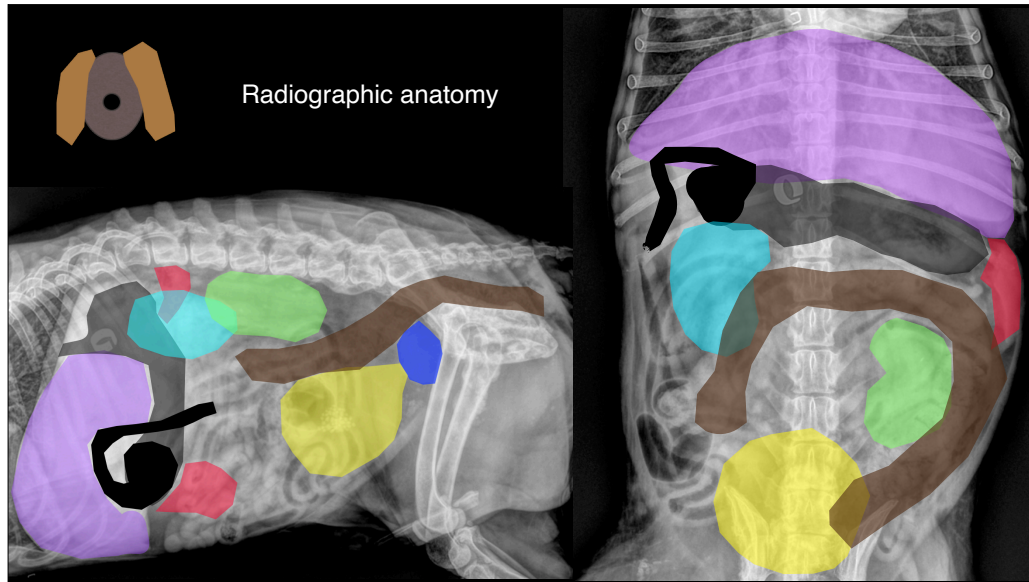
## Which factors determine the abdominal details?

- Fat deposition (age, breed...)
- Thickness
- Body condition score
- Anatomy of the different quadrants

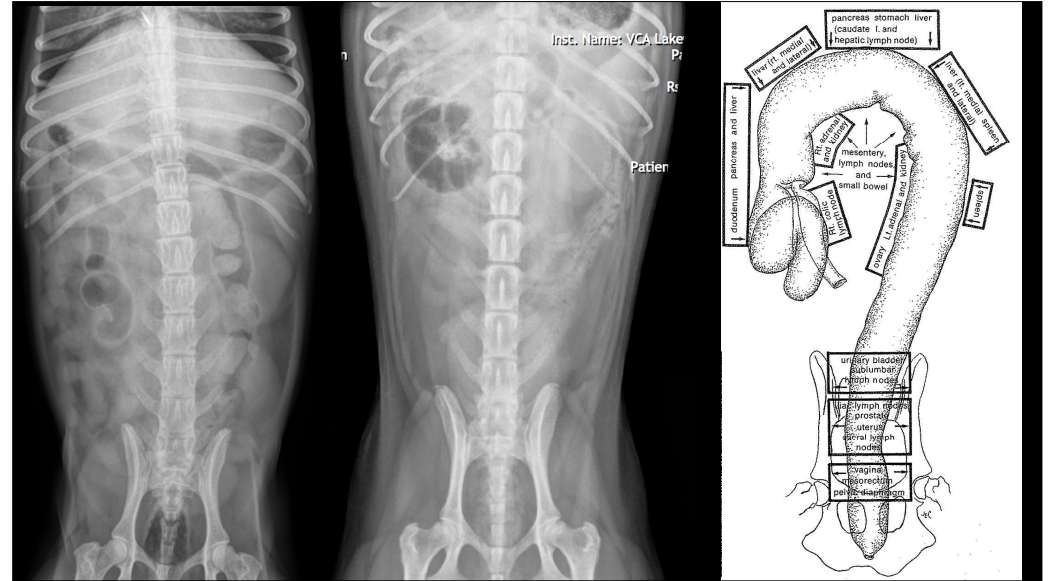
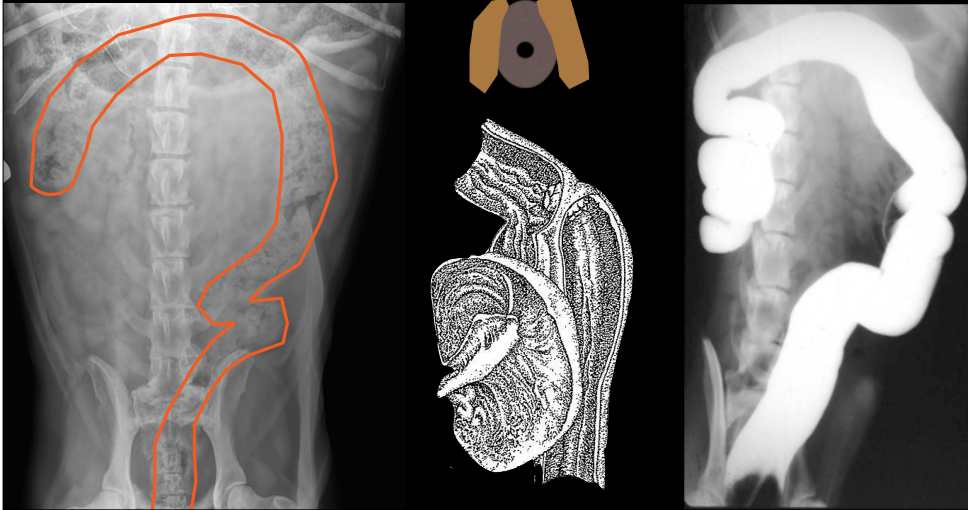


## Radiographic anatomy

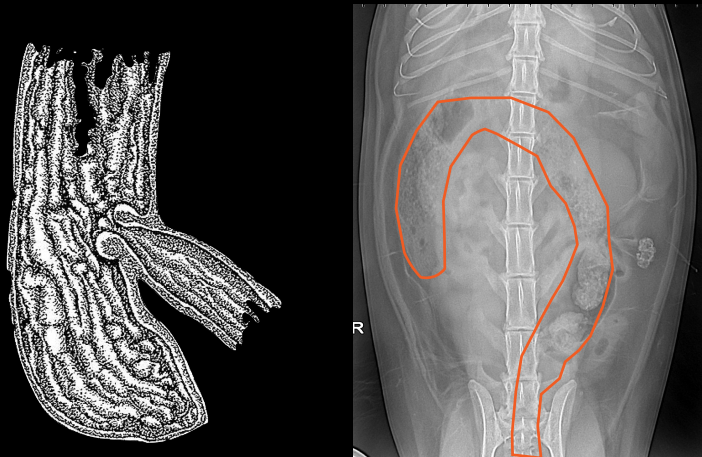




### The colon and the cecum in the dog



### The colon and the cecum in the cat



### Abdominal detail

- Within normal limits
- Increased



- Decreased/absent



Beemer, DSH, MN, 9 years

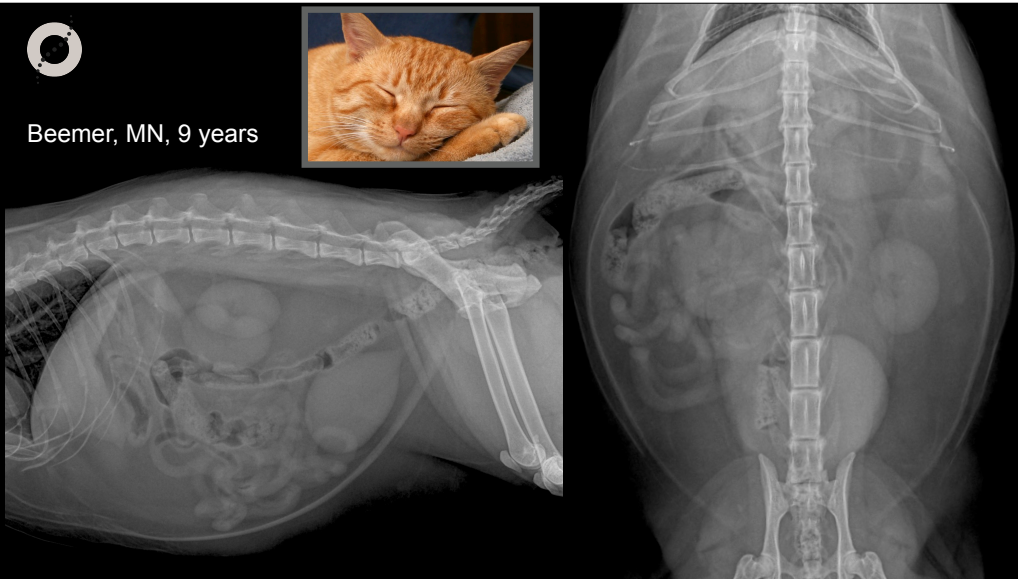
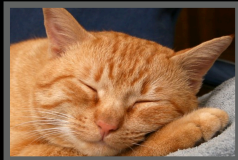
- Senior wellness



Beemer, MN, 9 years



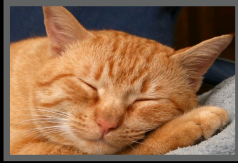
Beemer, MN, 9 years



Your evaluation?



Beemer, MN, 9 years



Beemer, DSH, MN, 12 years

Loosing weight

Anorexic

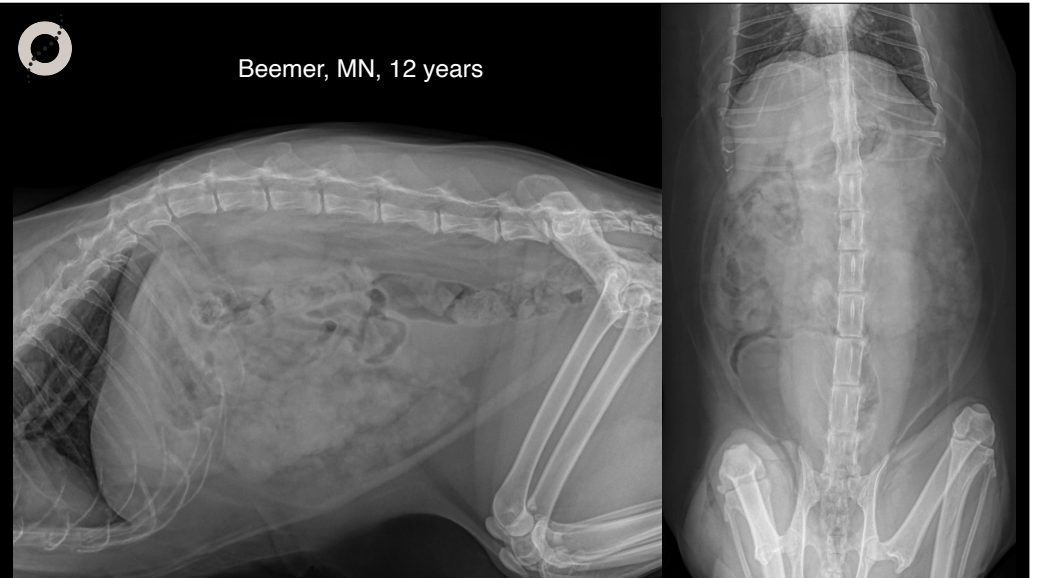
Lethargic



Beemer, MN, 12 years



Beemer, MN, 12 years



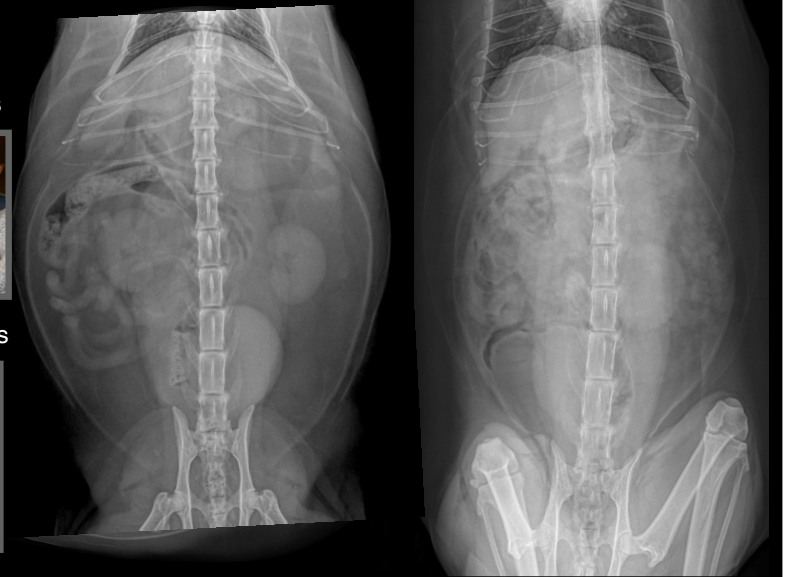
Your evaluation?



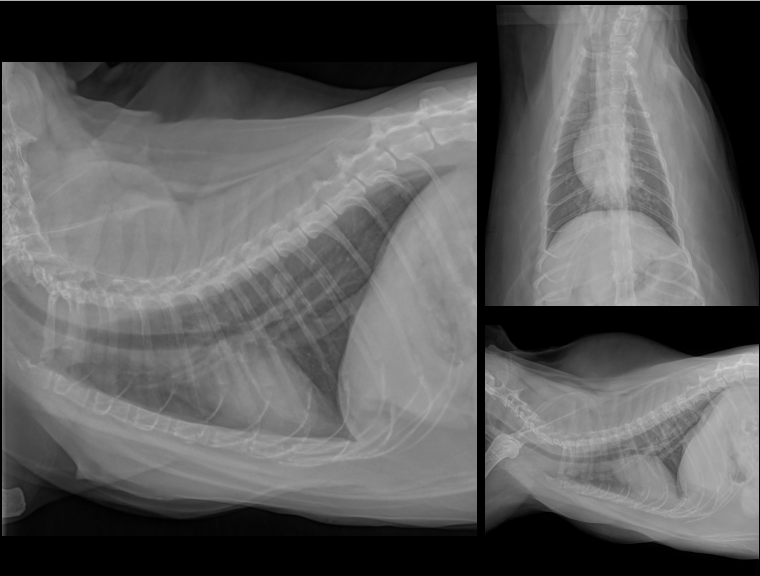
Beemer, MN, 9 years



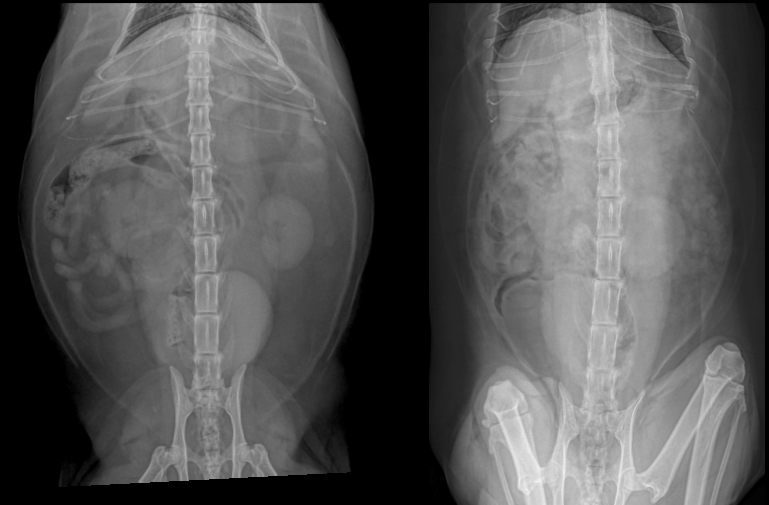
Beemer, MN, 12 years



Beemer, MN, 12 years



Abdominal Carcinomatosis

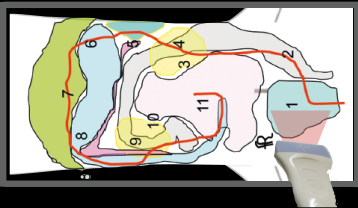
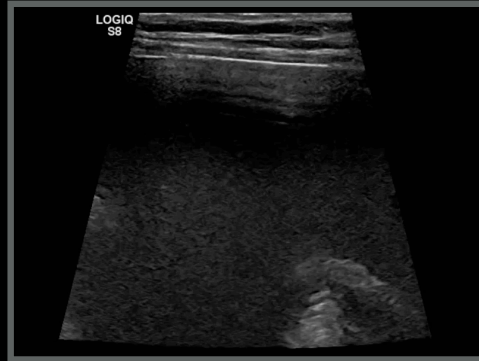
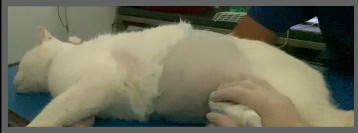




## Ultrasonographic example of abdominal carcinomatosis

Another patient, to show the position of the probe

1



## Differential diagnoses for altered abdominal details:

### Artefacts

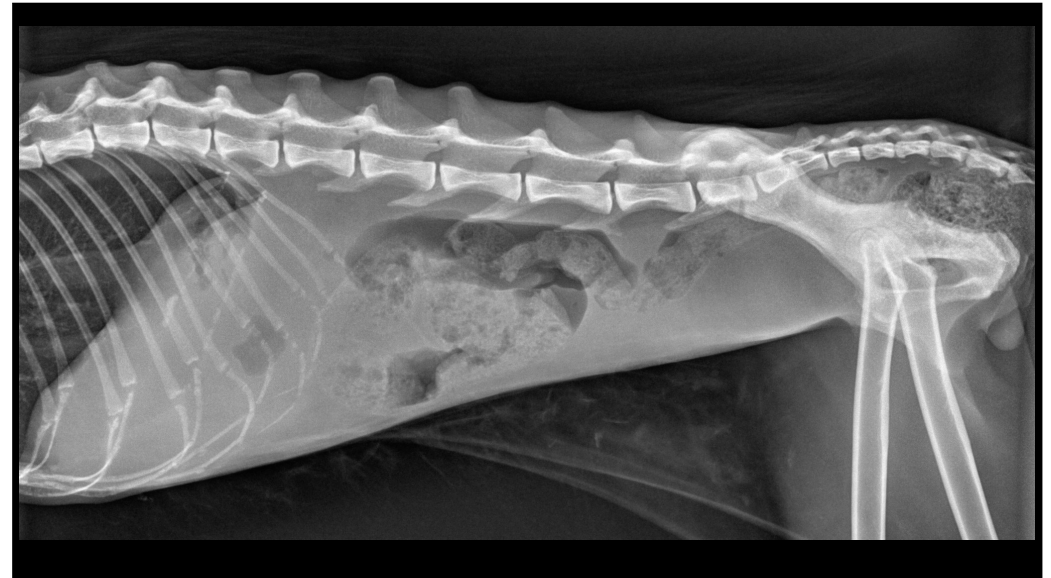
- Wet fur
- Subcutaneous emphysema
- Subcutaneous edema

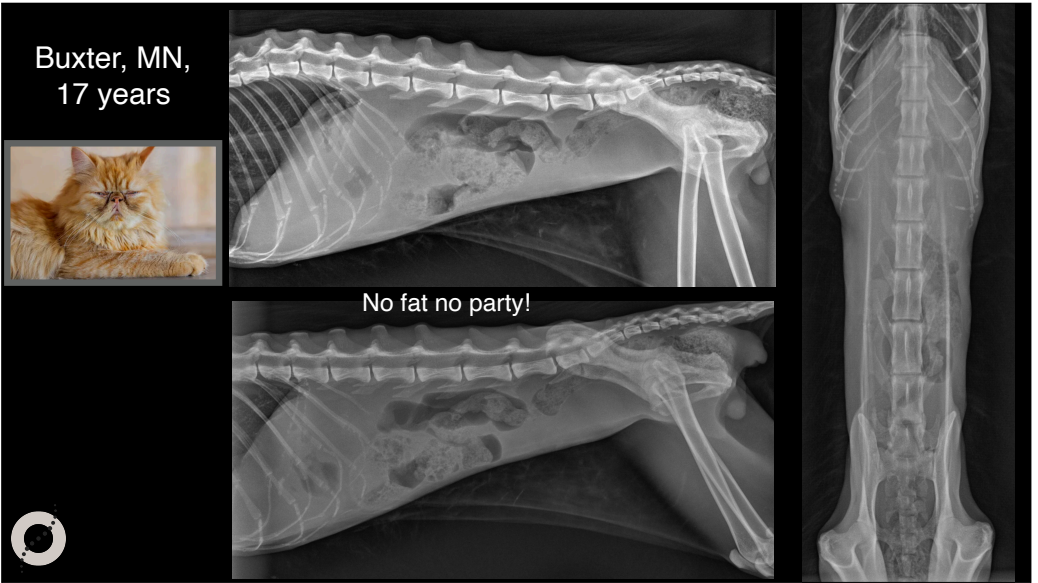
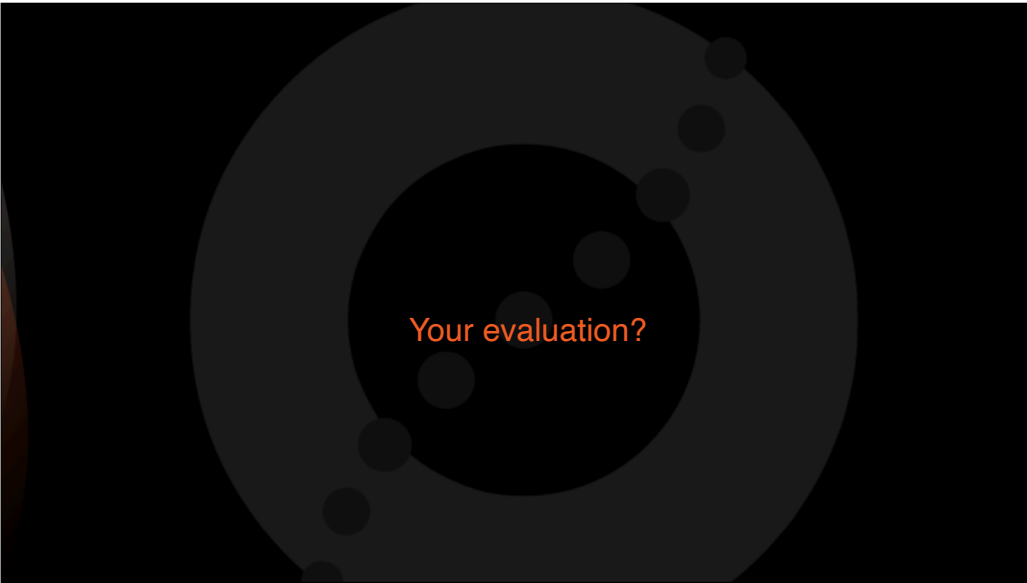
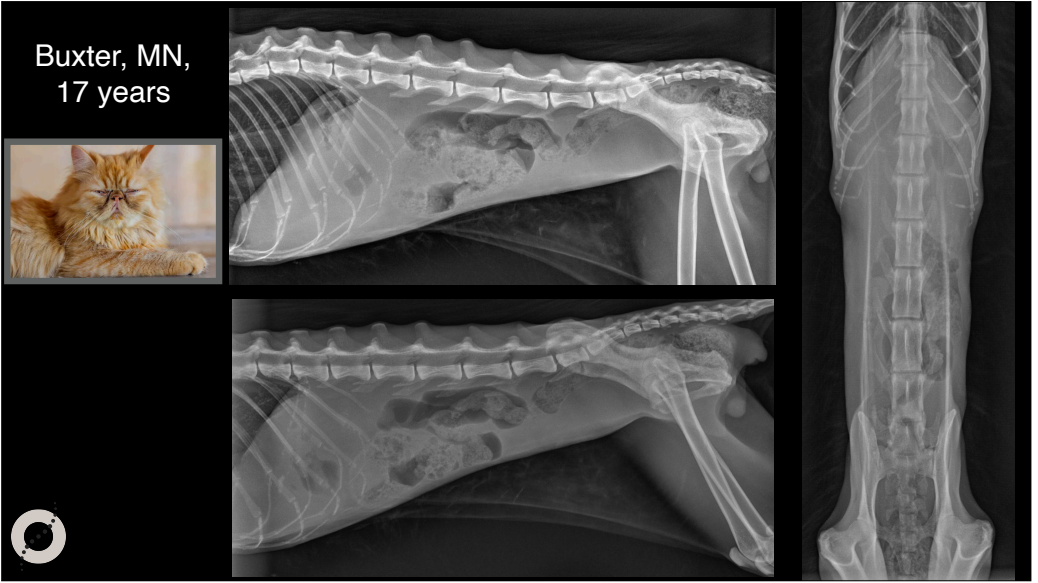
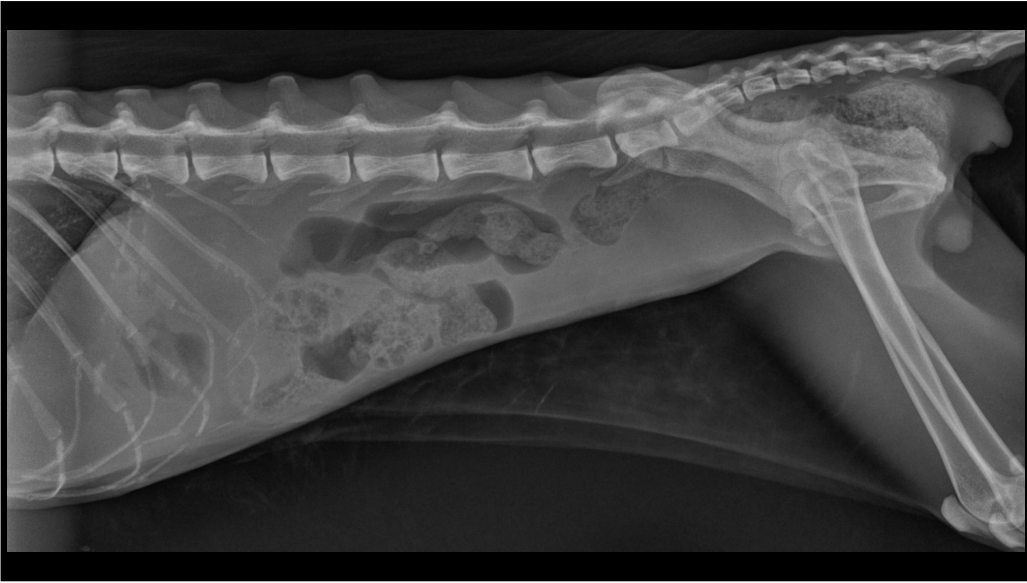
### Pathologies

- Peritonitis
- Carcinomatosis
- Pancreatitis
- Focal infection-abscess
- Minimal fluid accumulation

## Buxter, Persiano, MN, 17 years

- Constipation
- Lethargic
- Back pain?





Sterling, DSH, FS, 12 years

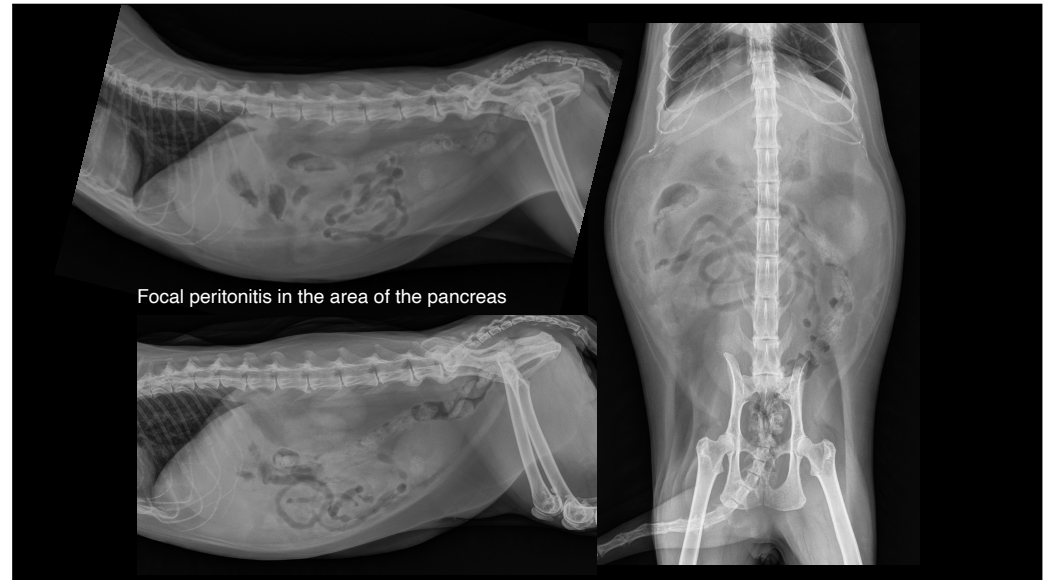
Loosing weight

Anorexic

Weakness



Sterling, FS, 12 years



Focal peritonitis in the area of the pancreas

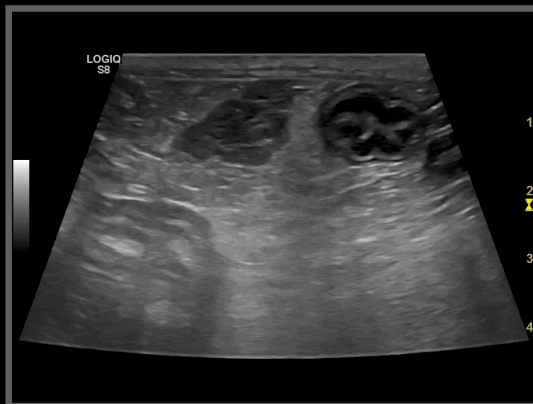
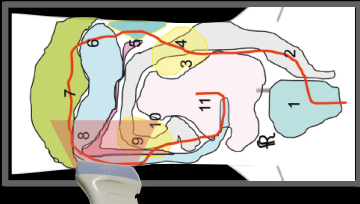
Your evaluation?



### Focal peritonitis surrounding the pancreas

Another patient, to show the position of the probe

8'

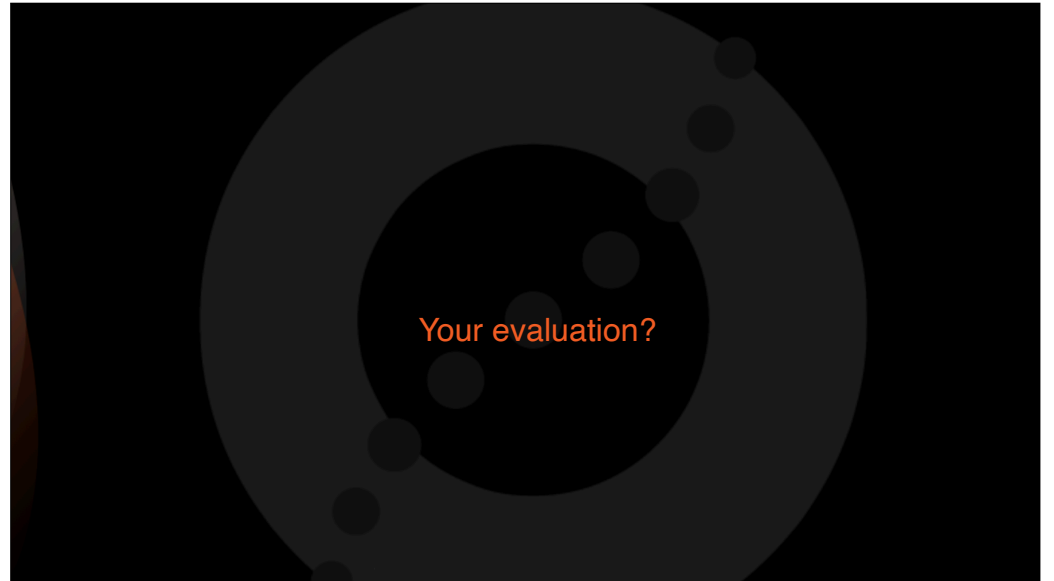
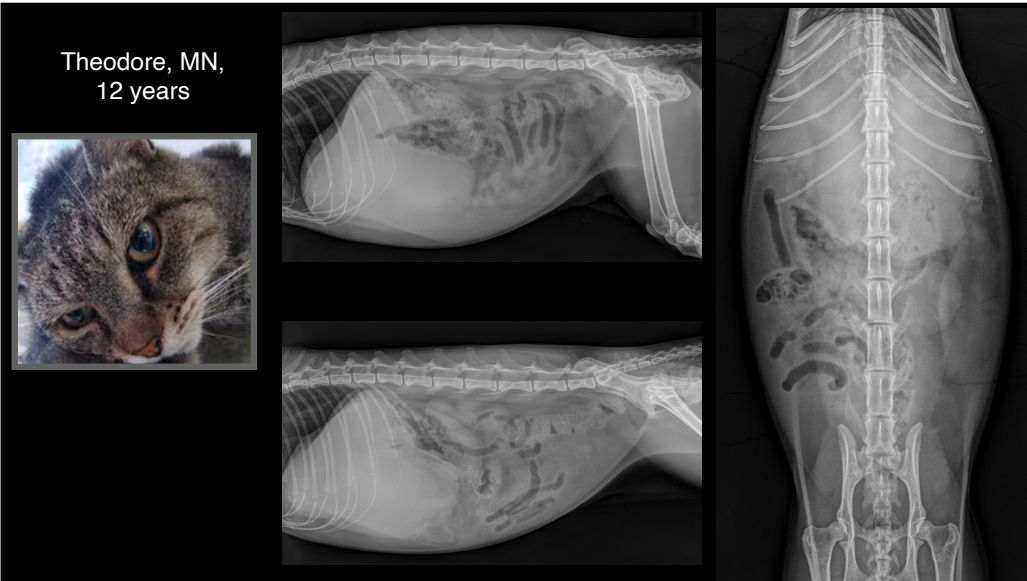
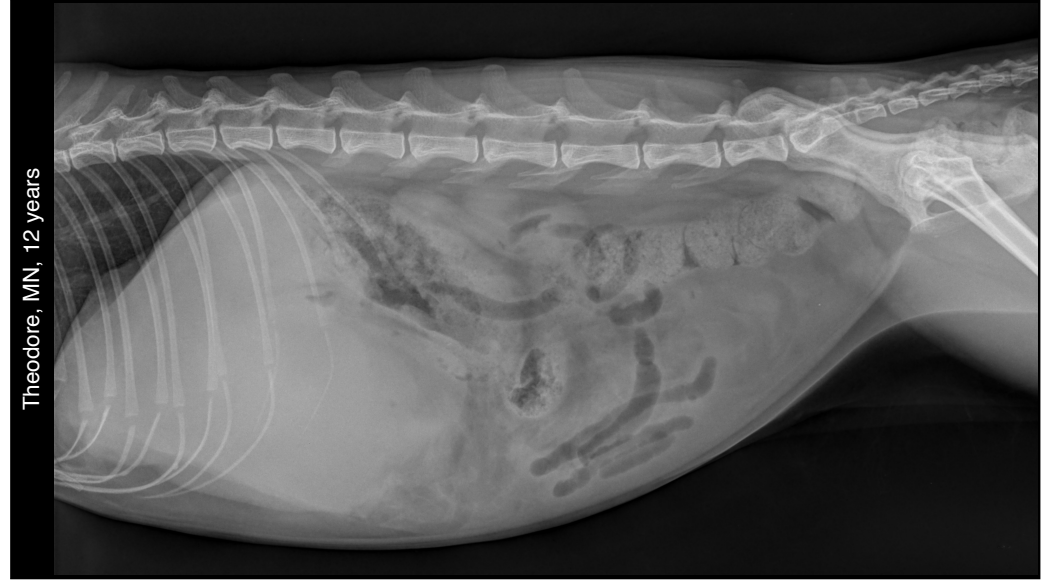
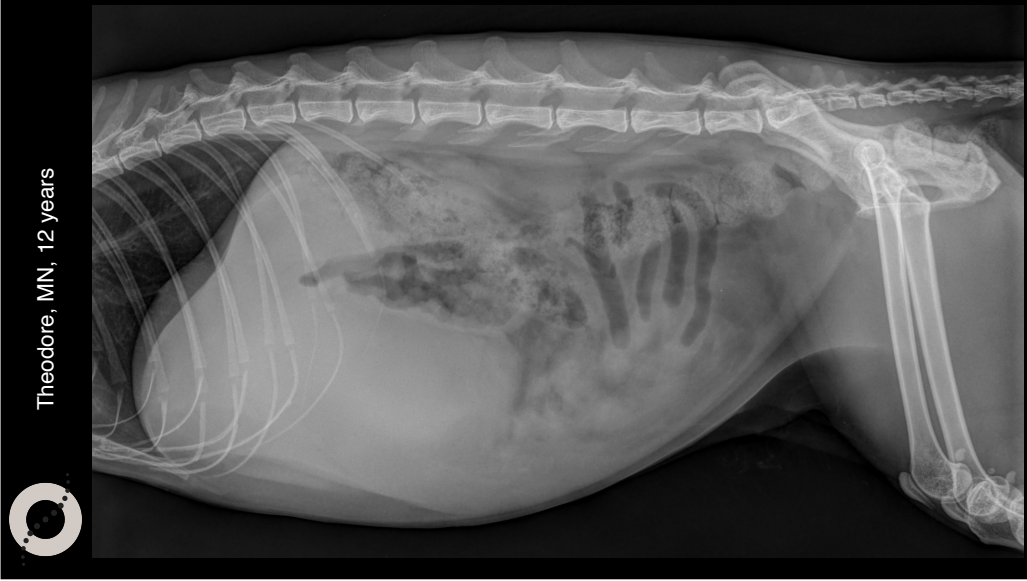


Theodore, DSH, MN, 12 years

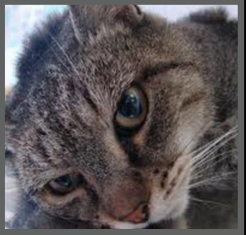
Collapsed after a trauma with the tea table

Pale mucous membranes





Theodore, MN,  
12 years



A-FAST: ruptured liver mass,  
hemoabdomen

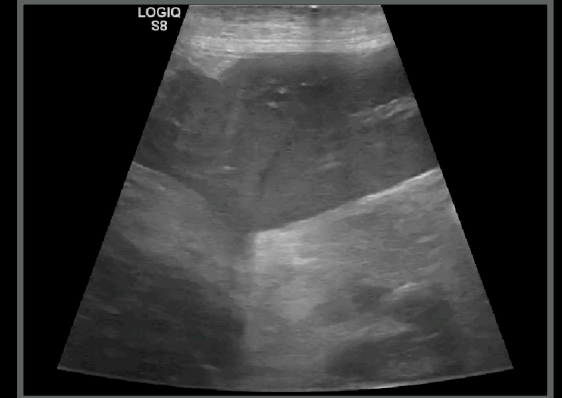
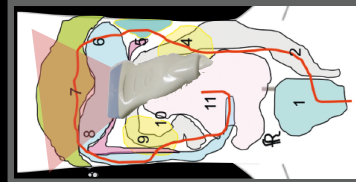


### Ultrasonographic example of effusion/peritonitis surrounding the liver

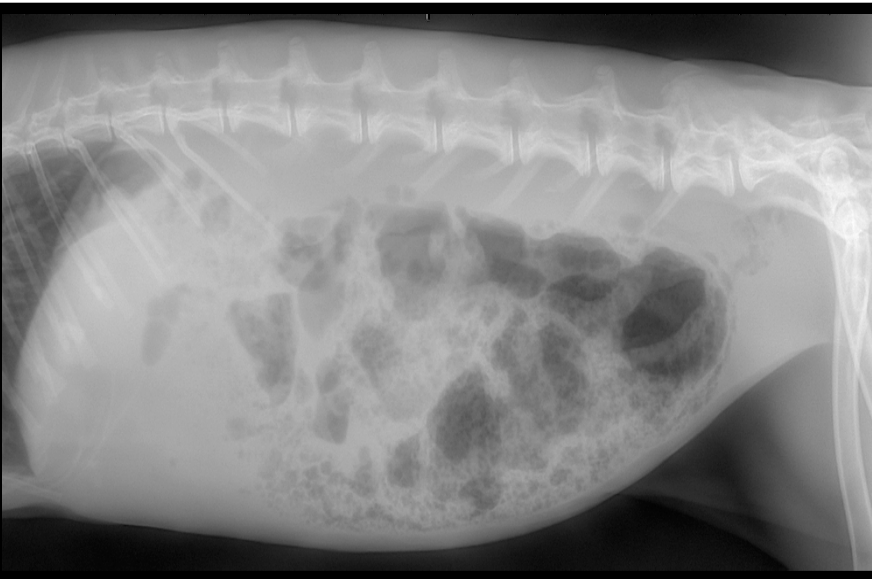
Another patient, to show the position of the probe



6-7-8



Bunny,  
Anorexic



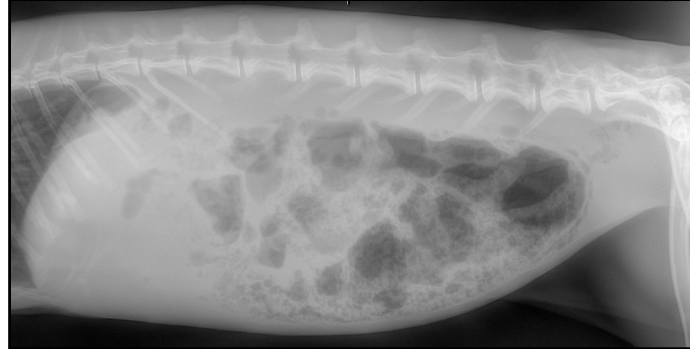
Bunny,  
Anorexic



Your evaluation?



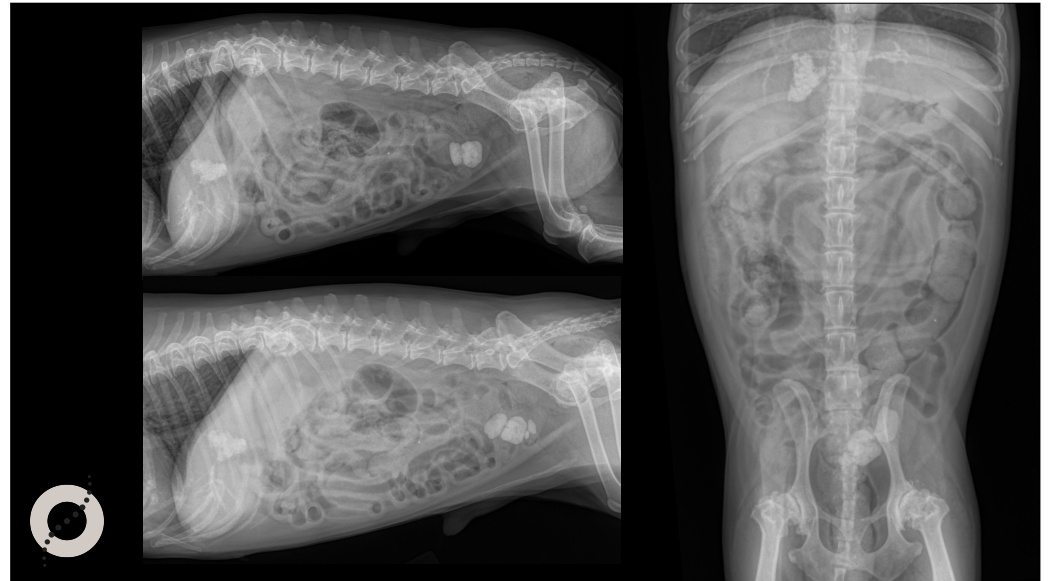
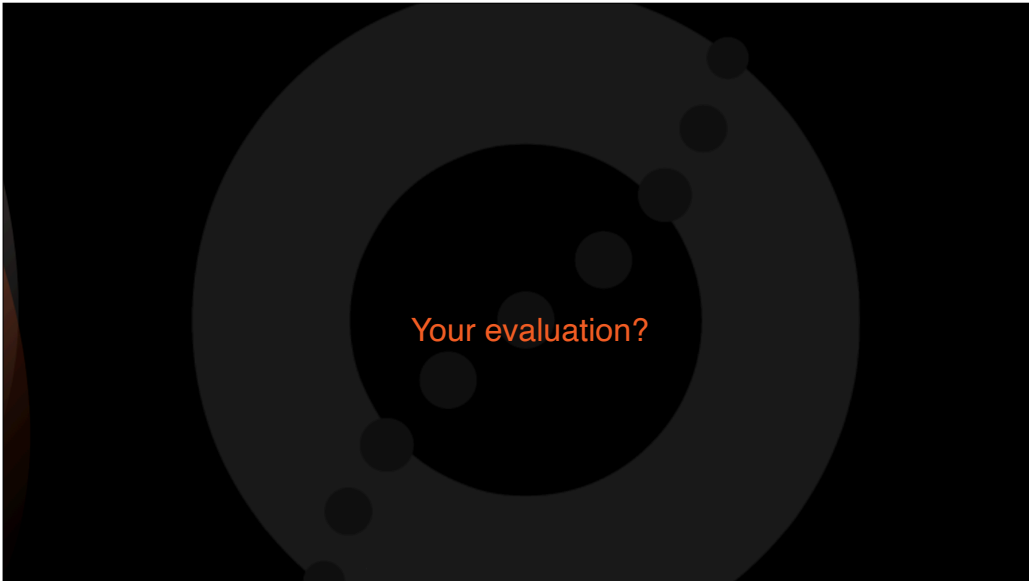
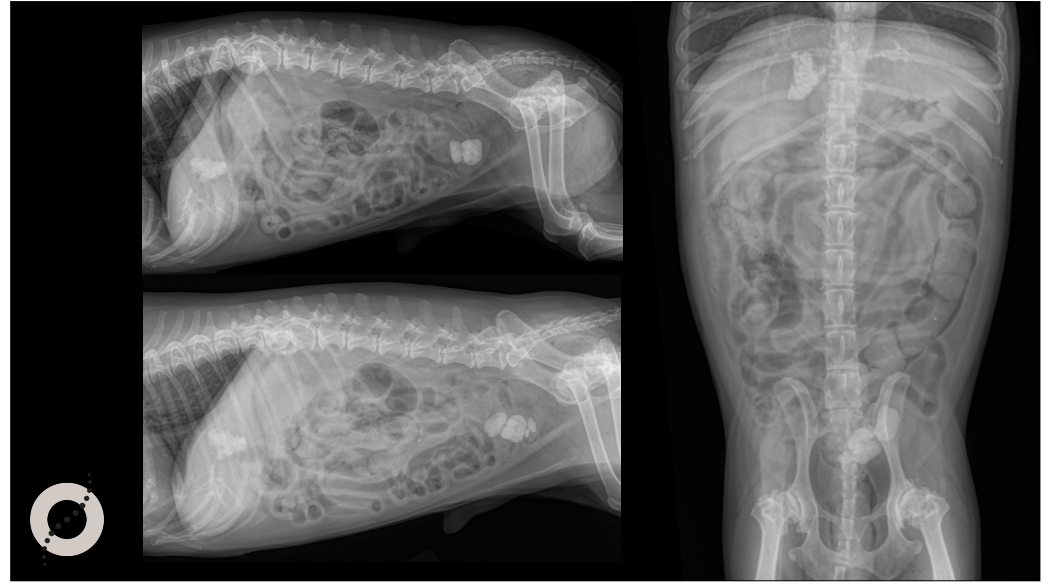
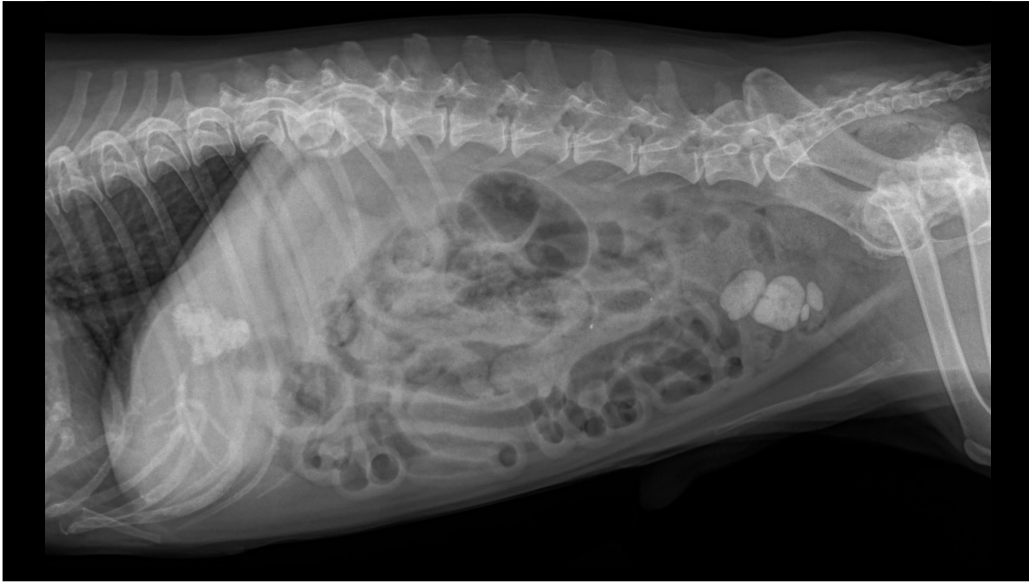
Bunny,  
Anorexic



Oliver, Terrier-Mongrel, MN, 15 years

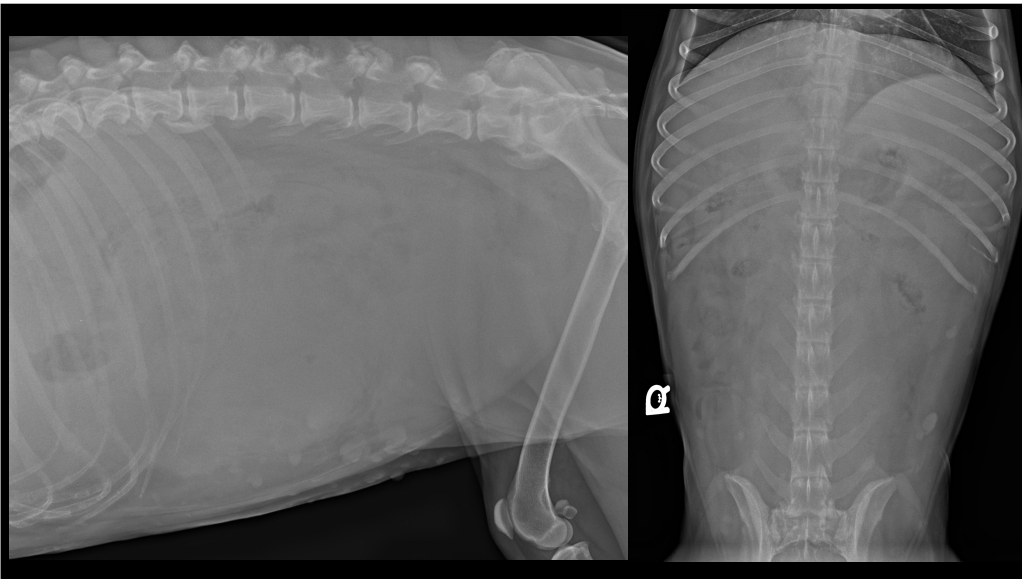
- Senior wellness



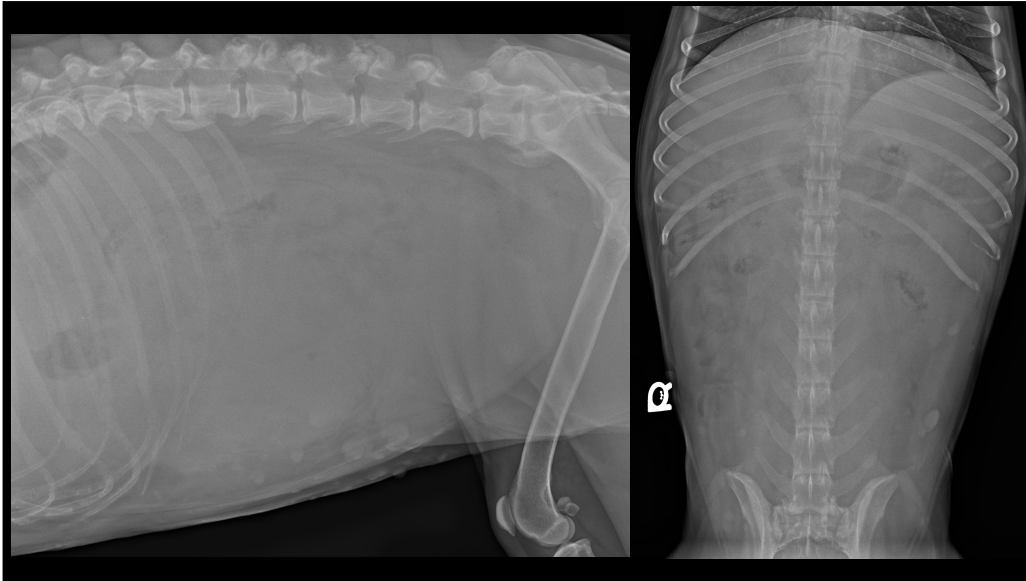


Lucy, Pitbull, FS, 12 years

- Back pain
- Now pale mucous membrane and not moving



Your evaluation?



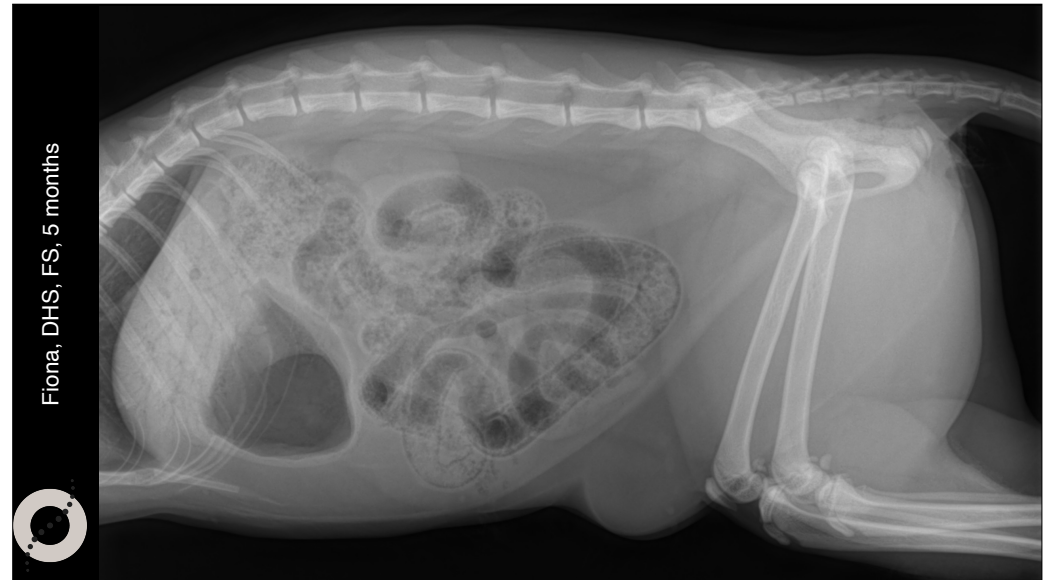
**Ultrasonographic example of peritoneal nodule in the dog**

Another patient, to show the position of the probe

11

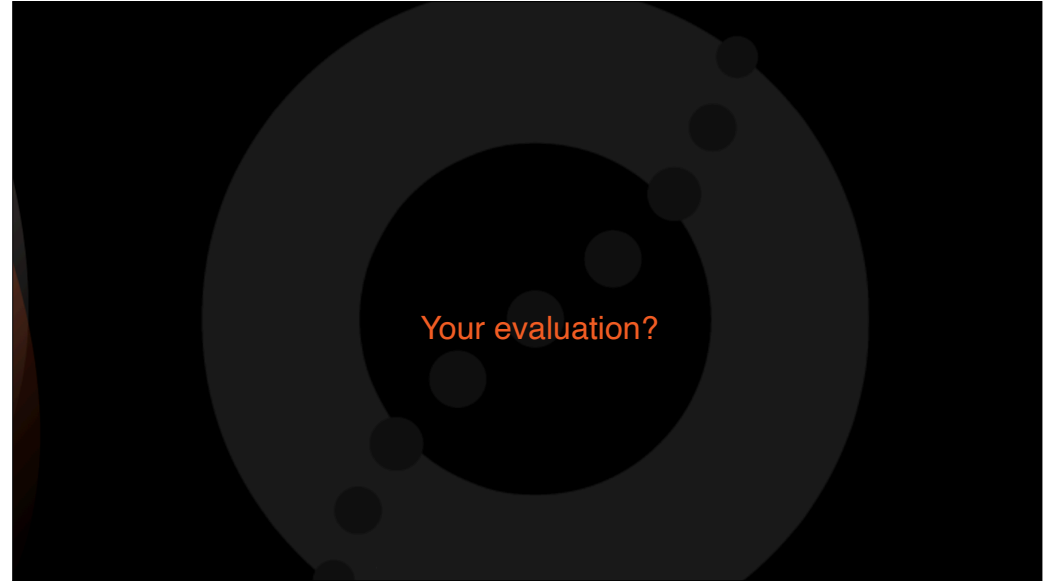
**Fiona, DHS, FS, 5 months**

- Blocked in the washer
- Now stuporous



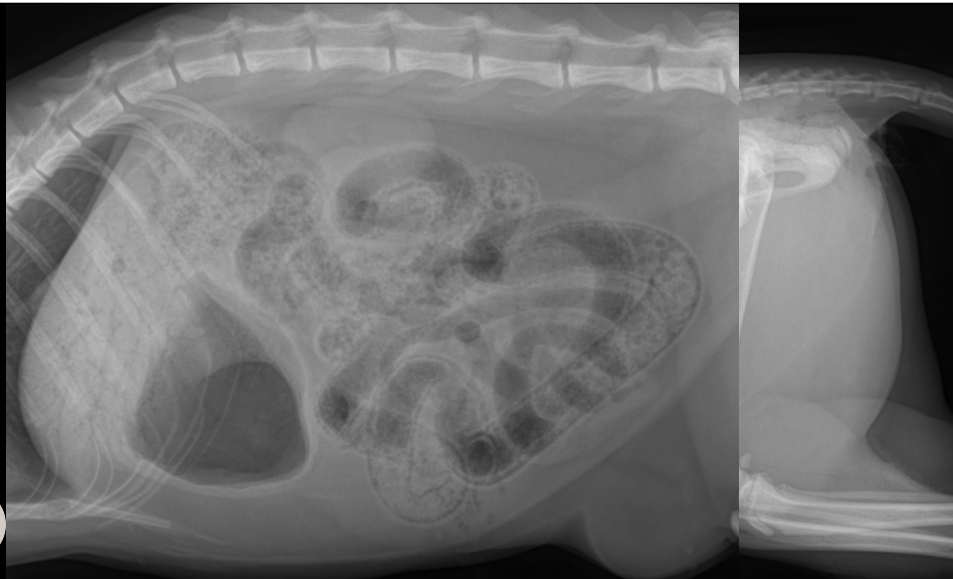


Fiona, DHS, FS, 5 months



Your evaluation?

Fiona, DHS, FS, 5 months



Fiona, DHS, FS, 5 months



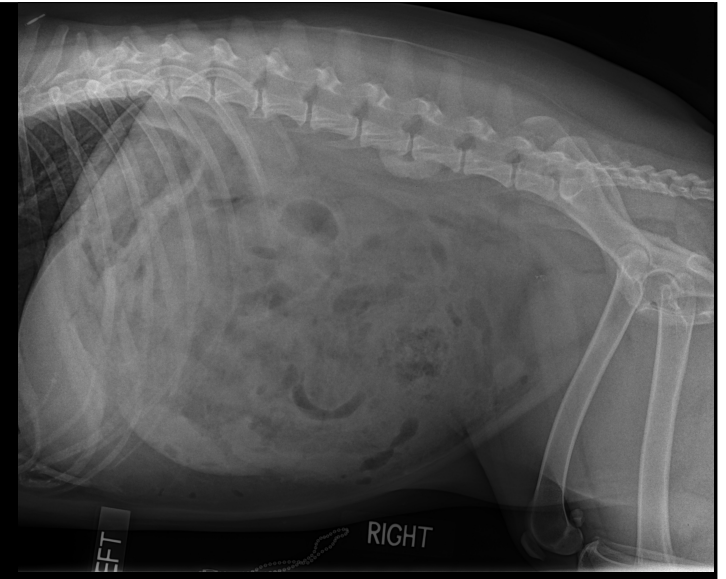
Radiography and ultrasonography of **pneumatosis intestinalis** in a cat.  
Walczak R, Paek M, Suran J, Amory JT, Specchi S, Sanchez M.  
Vet Radiol Ultrasound. 2020 May;61(3):E26-E30. doi: 10.1111/vru.12635. Epub 2018 May 24.  
PMID: 29797615

Nalü, Golden-Mongreal, FS, 7 years

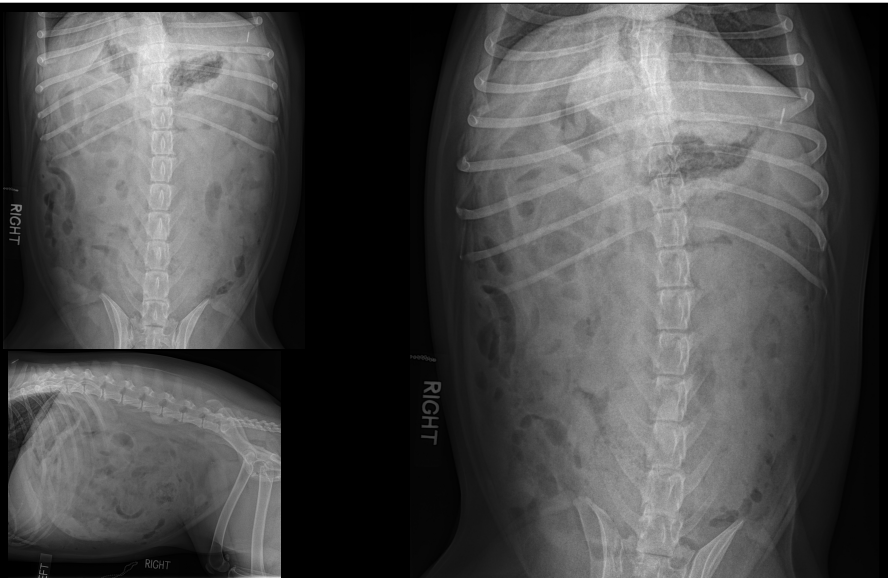
- Hit by a car yesterday
- Lethargic
- Vomiting
- TRC >2"



Nalü, Golden-Mongreal,  
FS, 7 years

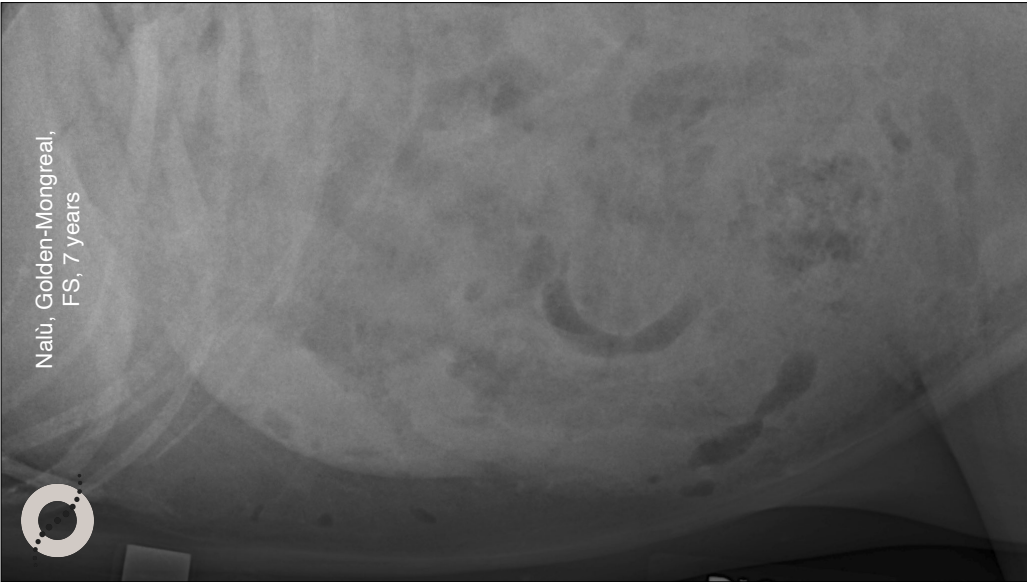


Nalü, Golden-Mongreal,  
FS, 7 years



Your evaluation?

Nali, Golden-Mongreal,  
FS, 7 years

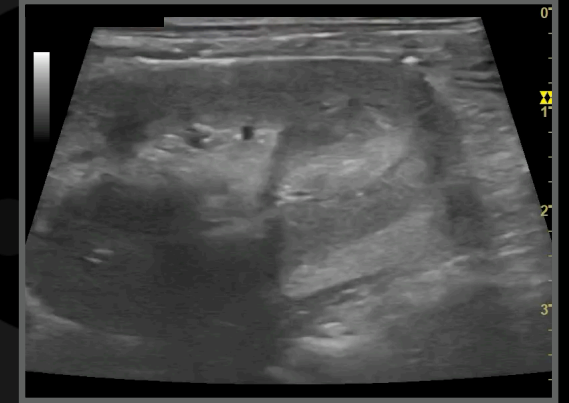


## Ultrasonographic example of pneumoperitoneum

Another patient, to show the position of the probe



5-4 long



## Conclusions

The most difficult radiographic  
feature is to define what is normal

Detail and contrast depend on  
many factors



# Thank you



Diagnostic Mindset

[www.diagnosticmindset.com](http://www.diagnosticmindset.com)