

## L'apparato genitale femminile e maschile



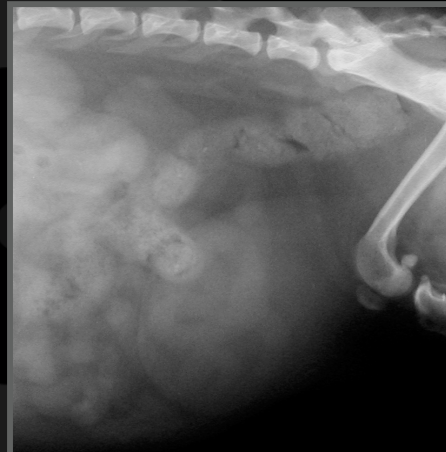
Giliola Spattini  
DVM, PhD, DECVDI

## Objectives

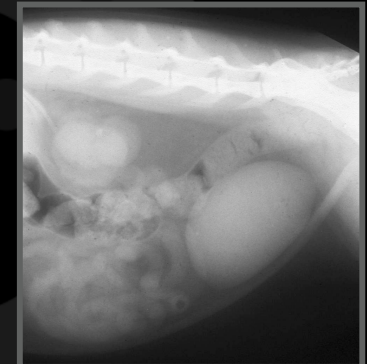
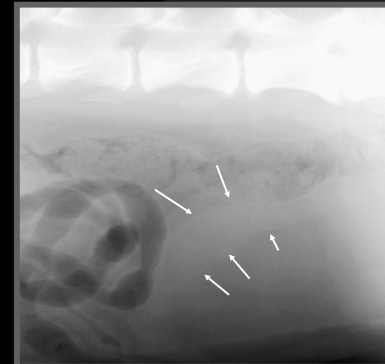
- When radiology is still useful in assessing the genital tract?
- When is better or needed despite of ultrasound?



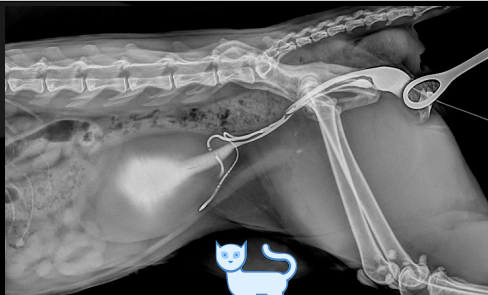
## Radiographic anatomy of female genital tract



## Radiographic anatomy of female genital tract



# Radiographic contrast evaluation of female genital tract



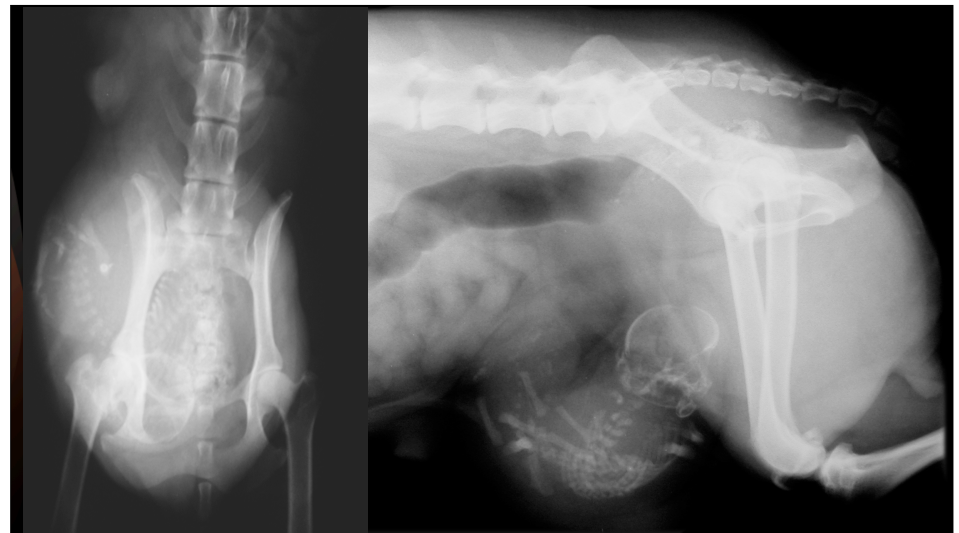
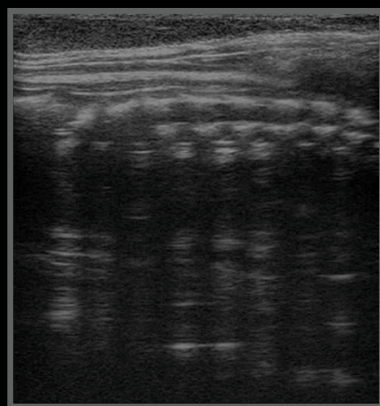
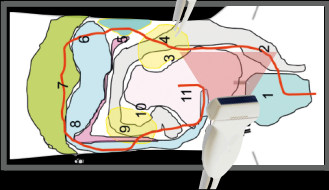
## Lilly, Mongrel, FS, 14 years

- The owner said:
- Yesterday this lump was not there
- She is otherwise doing fine, today mildly depressed



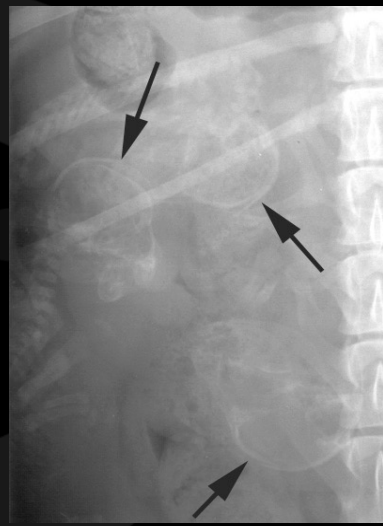
## Lilly, FI, 14 years

11-2

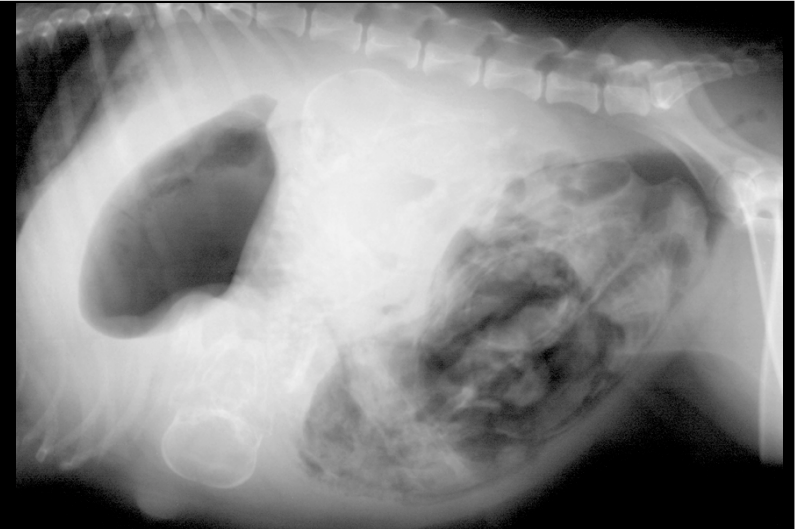


## Radiographic diagnosis of fetal death

- Head splitting
- Generalised reduced fetal opacity
- Not uniform fetal opacity



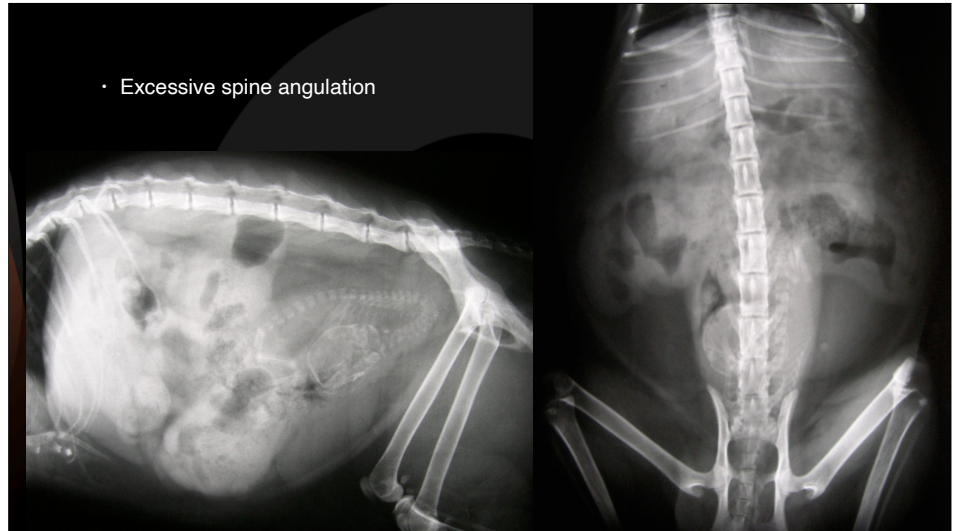
- Excessive uterine gas content



- Excessive spine angulation

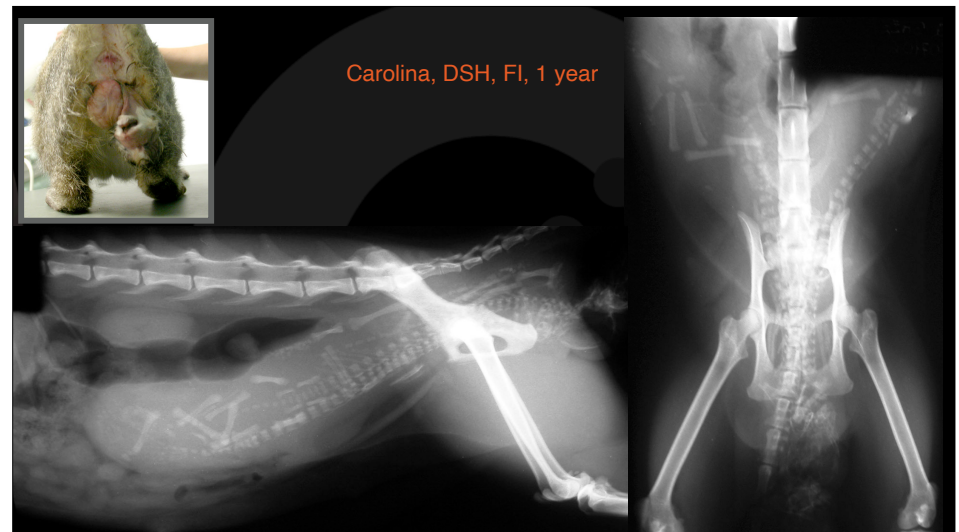
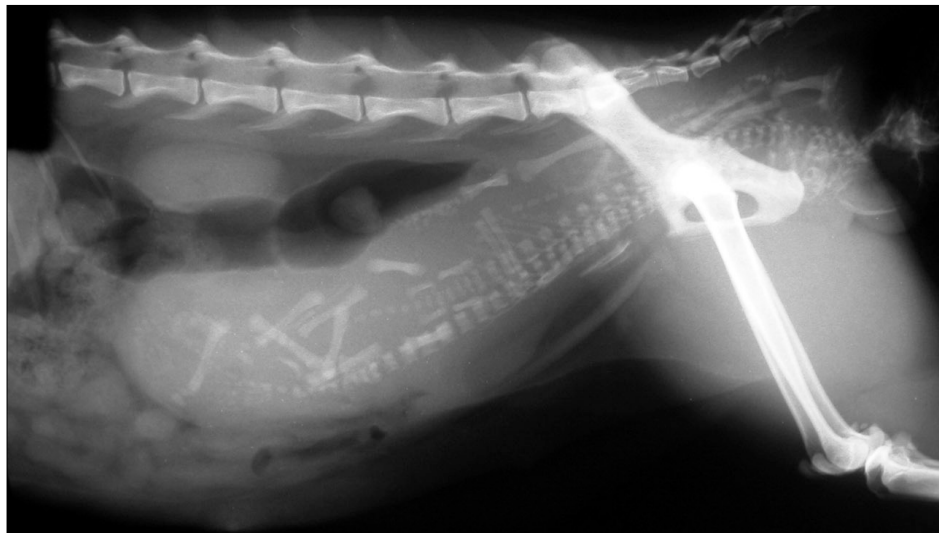
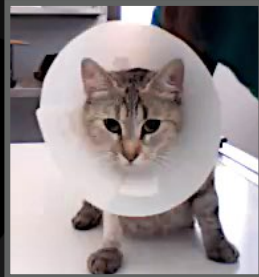


- Excessive spine angulation



Carolina, DSH, FI, 1 year

- The owner said: the cat smell badly
- Outdoor and indoor
- Not clear if She is eating or urinating



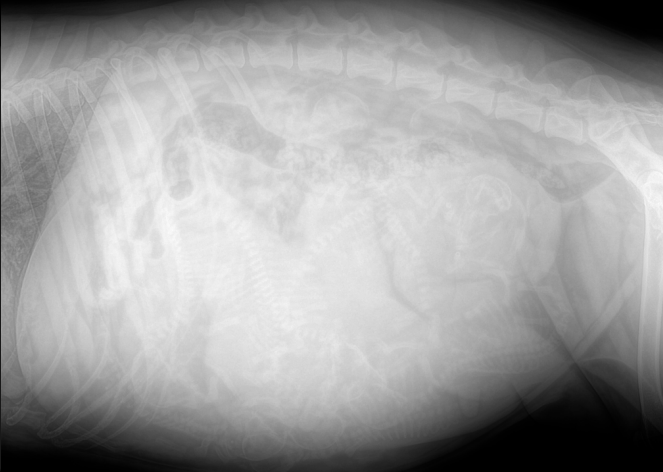
Is radiology accurate in detecting the number of fetuses?



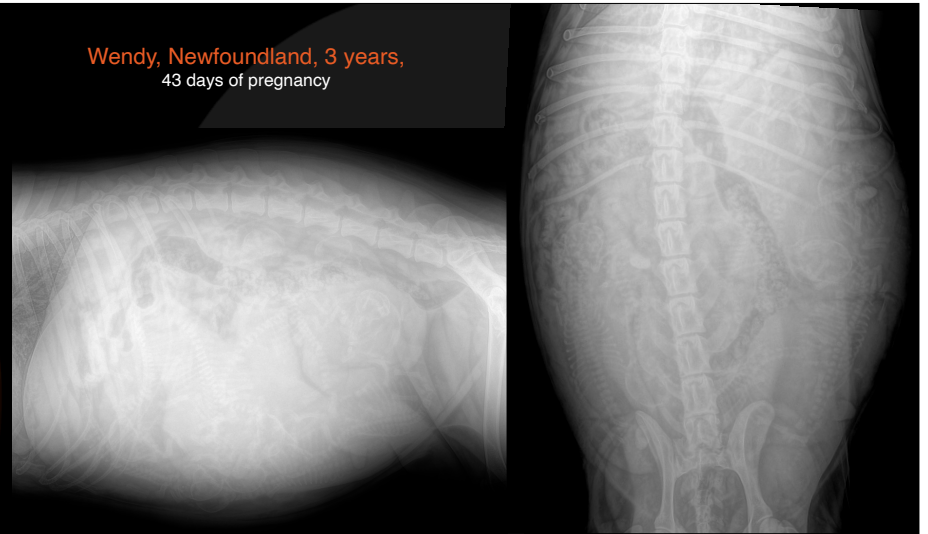
Betty, Chihuahua, 4 years,  
54 days of pregnancy



Wendy, Newfoundland, 3 years,  
41 days of pregnancy



Wendy, Newfoundland, 3 years,  
43 days of pregnancy



Wendy, Newfoundland, 3 years,  
55 days of pregnancy



Wendy, Newfoundland, 3 years,  
55 days of pregnancy

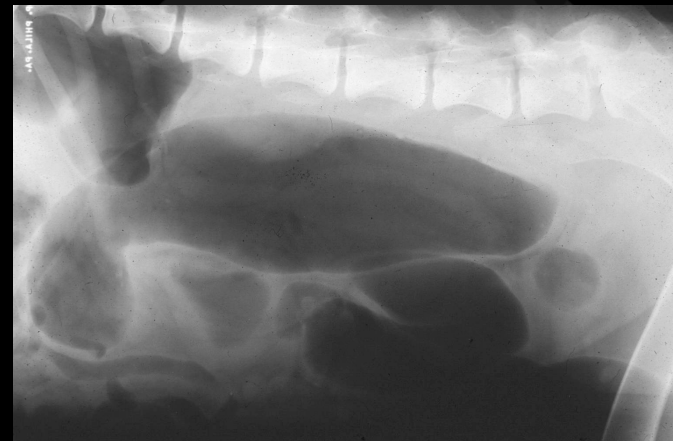


• Nine were born

Uterus or intestine?

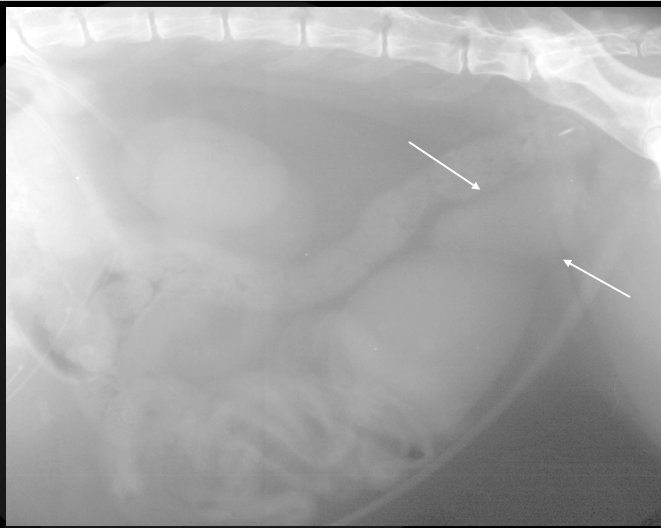


Emphysematous pyometra

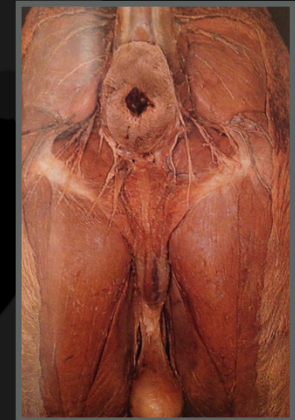
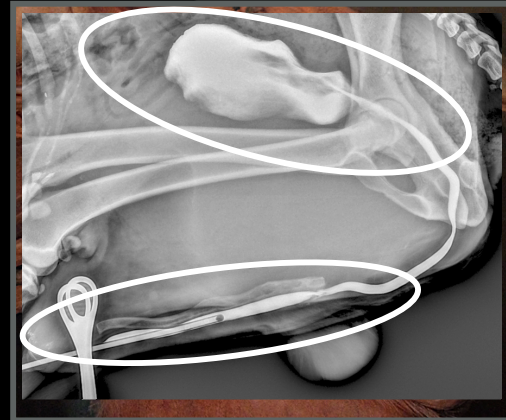


What is the problem?

Stump granuloma



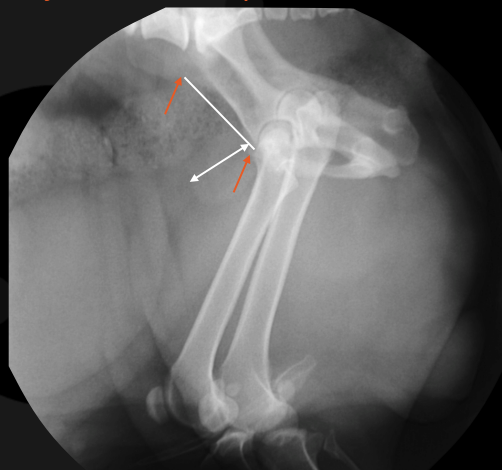
### Gross anatomy of male genital tract



### Radiographic anatomy of the canine prostate



- The length of the prostate should be  $\approx$  /  $<$  of 70% of pubic eminence/iliac angle distance



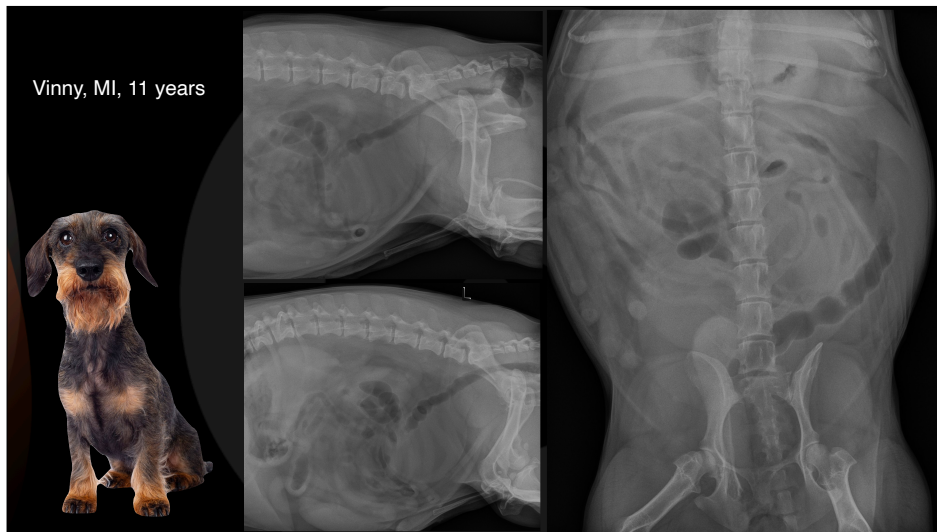
Validation of canine prostate volumetric measurements in computed tomography determined by the slice addition technique using the Amira program

Haverkamp et al. BMC Veterinary Research 2020, 16:46  
Katharina Haverkamp<sup>1\*</sup>, Lisa Katharina Harder<sup>2,3</sup>, Nora Sophie Maria Kühn<sup>1,3</sup>, Matthias Lüpke<sup>1,3</sup>, Ingo Nolte<sup>1,3</sup> and Patrick Weistadt<sup>1,3</sup>

### Vinny, Dachshund, MI, 11 years

- Tenesmus
- Mildly tense abdomen
- In the past back pain





Vinny, Dachshund, MI, 11 years

Radiographic diagnoses:

- Prostatomegaly
- Consider
  - Benign prostatic hyperplasia
  - Prostatic Metaplasia
  - Neoplasia

Next step:

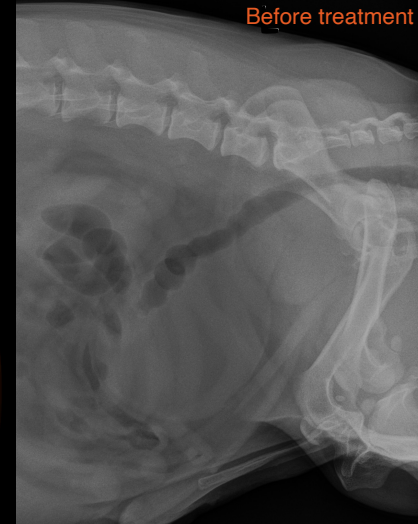
- Ultrasound
- Benign prostatic hyperplasia and mild perineal hernia found

Vinny, Dachshund, MI, 11 years

- Treated with finasteride for BPH for 2 months
- No clinical signs
- Prostate size recheck



Before treatment



After treatment



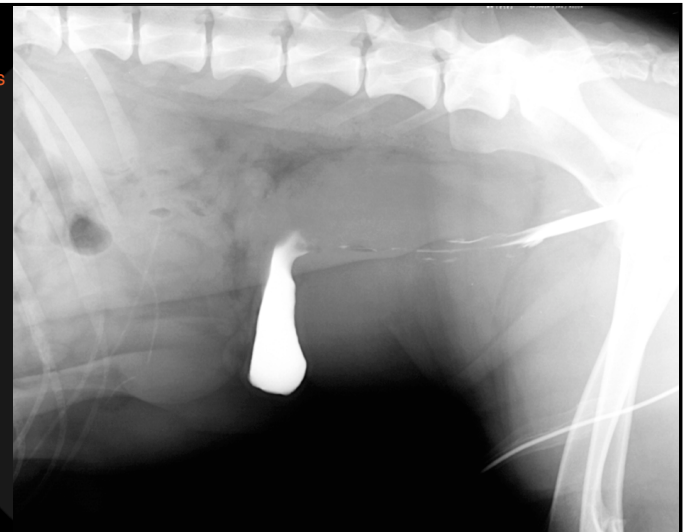
Benny, Beagle, MI, 9 years

- Hematuria
- Episodes of constipation



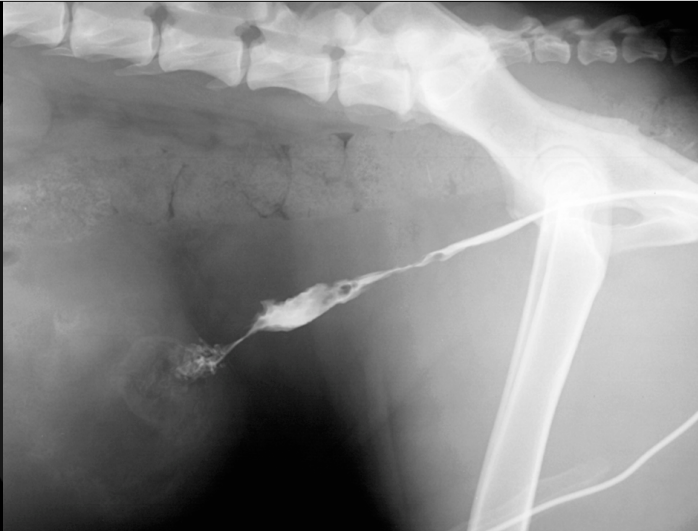
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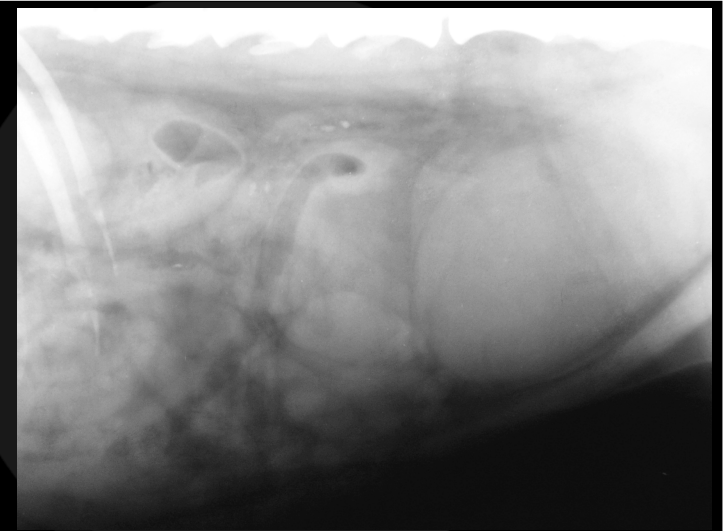
Tod, Mongrel,  
MI, 11 years

- Hematuria
- Stranguria



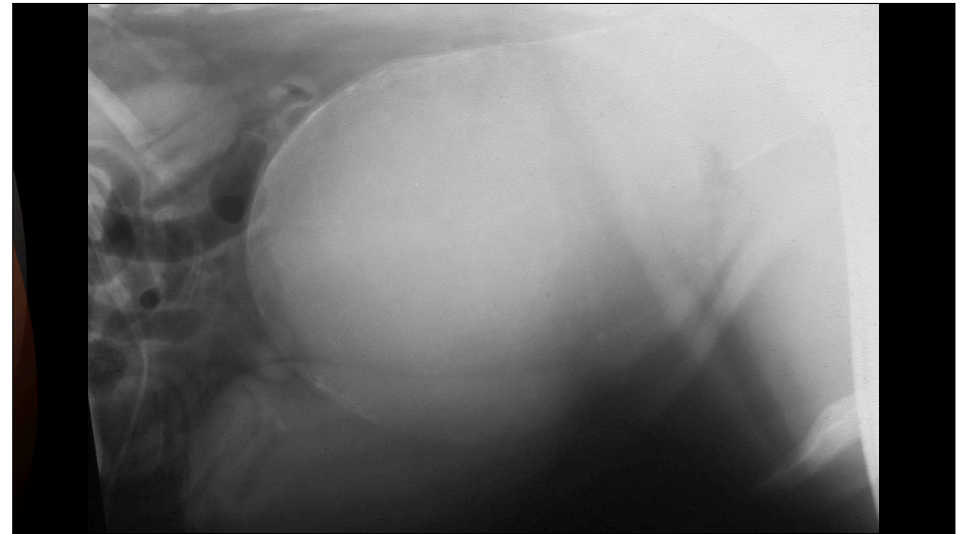
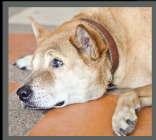
Berto, Mongrel,  
MI, 12 years

- Hematuria
- Stranguria



Berto, Mongrel,  
MI, 12 years

- Hematuria
- Stranguria



## Cafù, Drahthaar, MI ,12 years

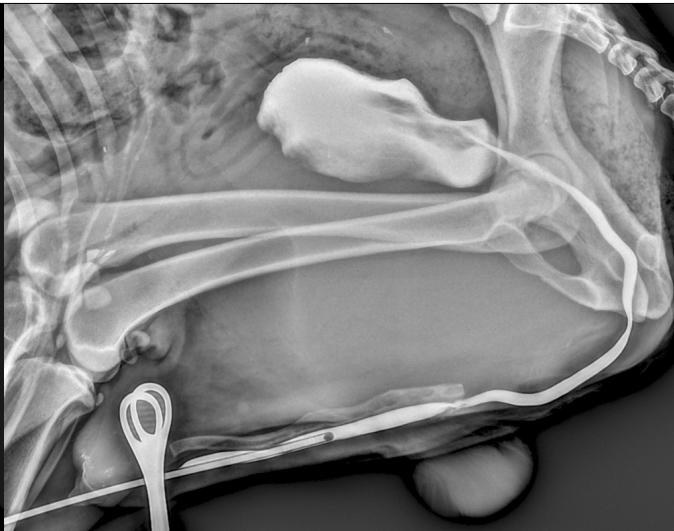
- Stranguria for the last week
- Loosing weight and urine recently
- Reduced urine stream, drop by drop
- Soft tissue thickening at the base of the os penis



## Cafù, MI, 12 years



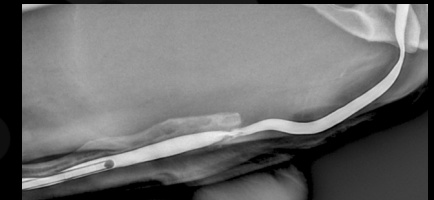
## Cafù, MI, 12 years



## Cafù, Drahthaar, MI ,12 years

### Radiographic diagnoses:

- Urethral focal stenosis at the base of the os penis
- Ultrasound shows periosteal proliferation and lack of soft tissue mass



### Next step:

**Urinary Obstruction Secondary to an Ossifying Fibroma of the Os Penis in a Dog**  
J Am Anim Hosp Assoc 2004;40:152-156.

- Urethrostomy or surgical curettage of the os penis?

## Conclusions

- Radiology can still be useful in genital tract for:
  - Count of the foetus
  - Incidental diagnosis of uterine disorder
  - Large uterine mass
  - Prostatic carcinoma
  - Para-prostatic cysts, size of the prostate



# Thank you



Diagnostic Mindset

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