

To cut or not to cut:

Radiographic Evaluation of the Acute Abdomen

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Obstruction -Intestines-

- Partial/Complete
- Ileus:
 - Functional
 - Dilated (1-2X normal)
 - Generalized pattern (all same size)
 - Mainly gas
 - Mechanical
 - Greater dilation (> 2X normal)
 - '2 populations'
 - Gas & fluid

Obstruction -Stomach-

- Positional radiographs
 - 4 views
- Negative/positive contrast gastrogram
 - Small amounts
 - Air or carbonated soda (5ml/kg)
 - Positional radiographs

Obstruction -Colon-

- Pneumocolon:
 - Dog: 1-3ml/kg
 - Cat: 20-30ml total

Obstruction -Intestines-

Normal small bowel:

- Dog
 - ≤ 1.6X height of L5
 - ≤ 2X width of a rib
- Cat
 - ≤ 12mm
 - ≤ 2X height of L4

Obstruction -Urinary Tract-

- Urinary tract
 - Normal kidney (VD view):
 - Dog: 2.5-3.5 X L2
 - Cat: 2.4-3 X L2
 - Excretory urogram
 - Kidneys & ureters

Obstruction -Urinary Tract-

Cystogram

- Positive contrast
 - Location, tears/rupture
 - Dog 5-10ml/kg, cat 2-5ml/kg
- Double contrast
 - Wall lesions & filling defects
 - Dog: 5-10ml iodinated contrast
 - 5ml/kg gas
 - Cat: 3ml iodinated contrast
 - 2-3ml/kg gas

Rupture = 'Free' Air

- Gastric/intestinal perforation
 - Gas seen:
 - Adjacent to diaphragm
 - Sharply-angled bubbles between SI loops
 - Outlining serosal surfaces
 - ****Post-sx: can persist for 3 weeks****

Obstruction -Urinary Tract-

- Urethrogram
 - Trauma, abnormal cranial bladder
 - Masses, calculi
 - Dogs
 - 10-30ml
 - Cats
 - 5-10ml

Rupture = 'Free' Air

- Small amounts difficult to see
 - Horizontal beam
 - Position 10 min prior
 - Lateral (dorsal recumbency)
 - VD (left lateral recumbency)

Organ Displacement -Diaphragmatic Hernia-

1ml/kg

If abd fluid,
2ml/kg

