

Foundations of General Abdominal Radiology Case Companion Workbook

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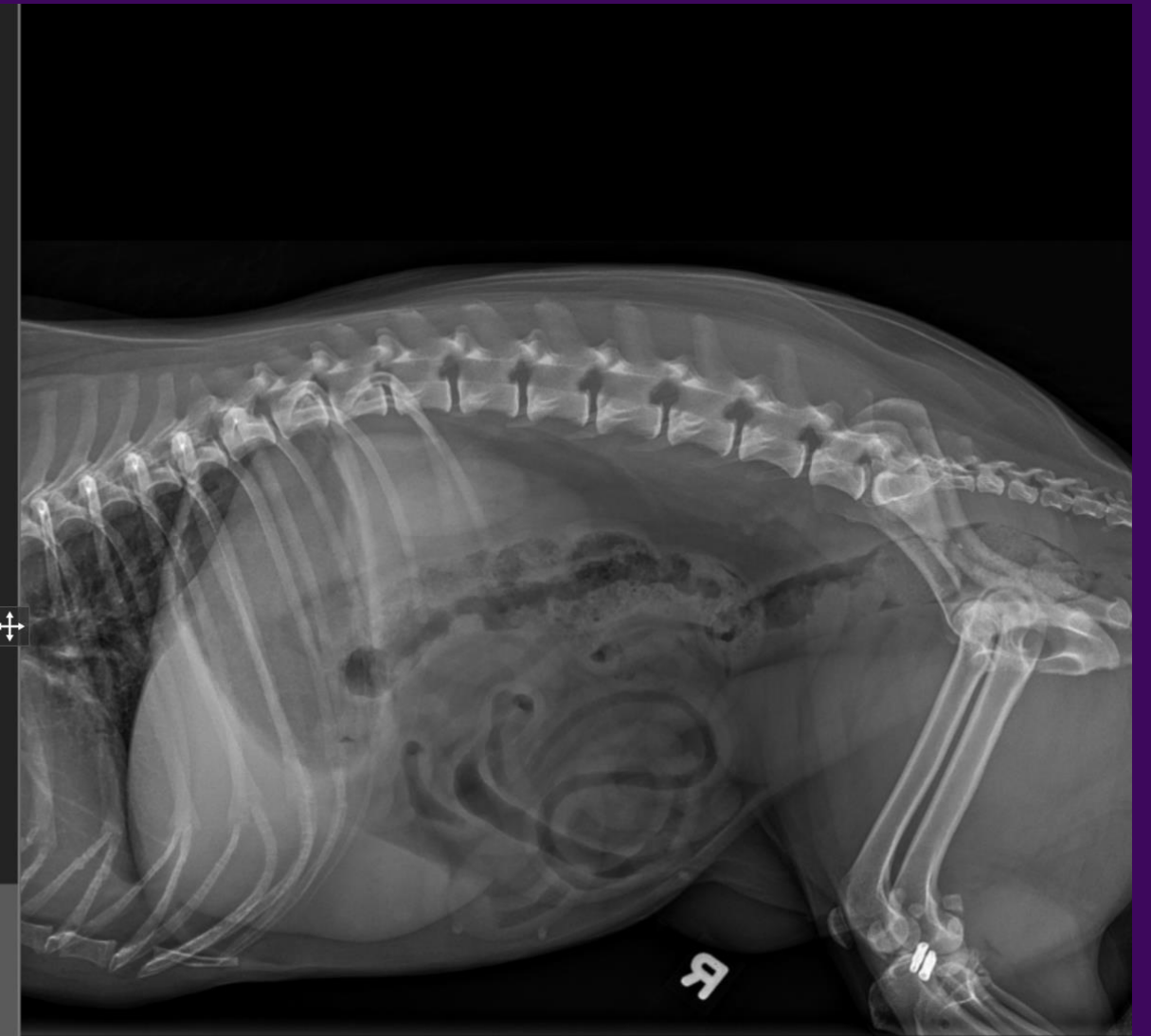


Liver

- Enlargement → caudal shift in the gastric axis
 - Can sometimes see a mass
 - Can be pedunculated
- Reduced size (Microhepatia)
 - Portosystemic Shunt
 - Cirrhosis
- Opacity is important
 - Mineralization → biliary vs mass
 - Gas → Abscess, emphysematous cholecystitis

Hepatic Mass Differentials

- Cyst – benign cyst, cystadenoma, cystadenocarcinoma
- Hematoma – may occur with trauma, coagulopathy, bleeding tumor
- Hyperplasia – nodular hyperplasia
- Abscess – gas in liver, often immunocompromised
- Neoplasia
 - Hepatoma (adenoma)
 - Hepatocellular carcinoma
 - Round cell (histiocytic sarcoma, lymphoma)
 - Hemangiosarcoma
 - Metastasis
- Granuloma - unlikely



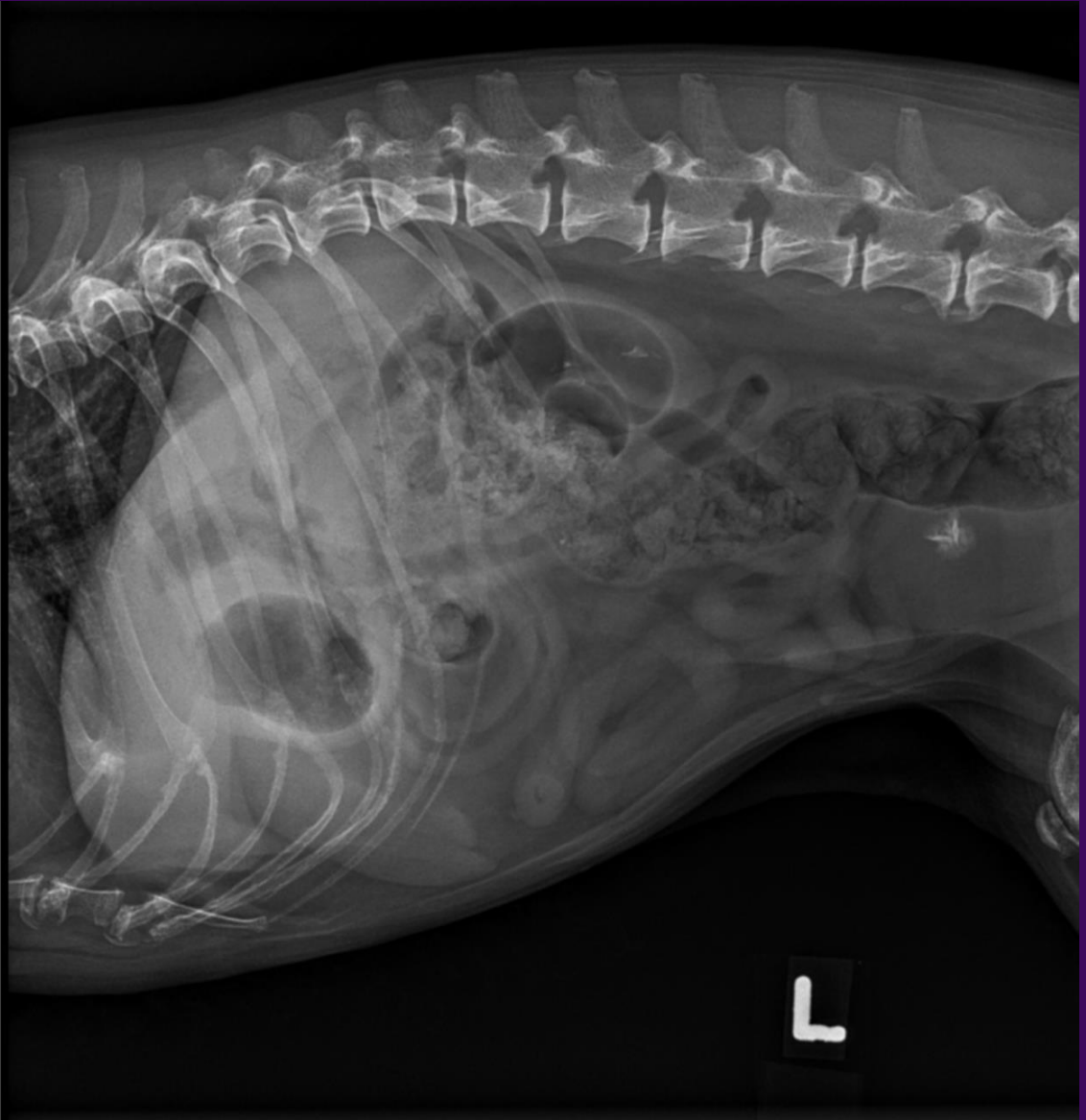
Mild hepatomegaly



Mild hepatomegaly



Small hepatic mass
(What other body system abnormalities
can you see?)



Microhepatia

Spleen

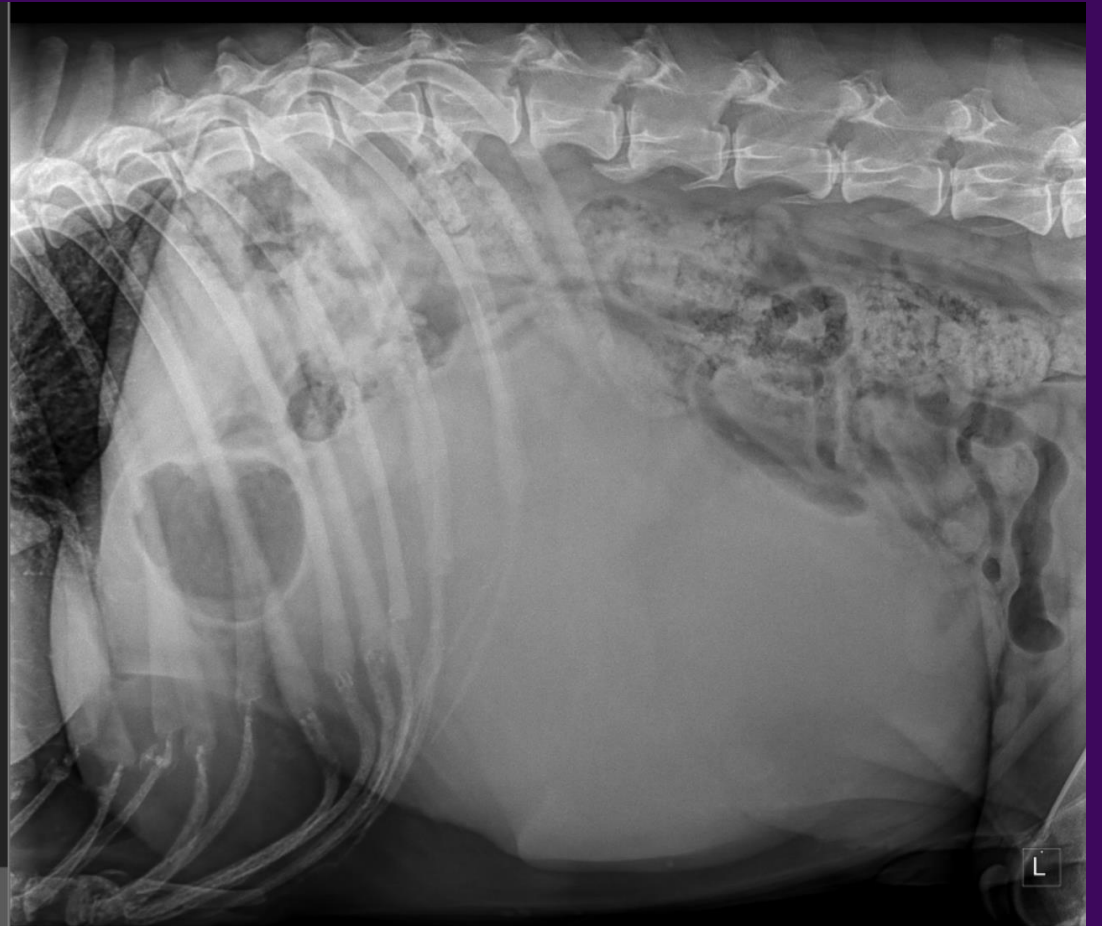
- Variable in dogs
 - Breeds
 - Sedation
 - Mobile organ
- Enlargement causes displacement of intestines
- Reduced size rarely documented radiographically
 - Splenic contraction possible
- Cats
 - Not normally seen in lateral
 - < 1-1.3 cm on ultrasound

Splenic Mass Differentials

- Cyst – not really seen
- Hematoma – with a mass, coagulopathy, trauma
- Hyperplasia – EMH, lymphoid hyperplasia
- Abscess – immunocompromised patients, gas in spleen, sometimes when torsed
- Neoplasia
 - Hemangiosarcoma
 - Histiocytic sarcoma
 - Extraskeletal osteosarcoma
 - Metastasis
- Granuloma – not really seen



Splenic mass and hepatomegaly



Splenic mass

Peritoneal Space

- Peritoneal contrast
 - AKA serosal contrast
 - AKA serosal detail
 - AKA serosal margins
- Contrast is the ability to distinguish between two structures
- Contrast in the abdomen is due to FAT in the peritoneal space and GAS in the intestinal lumen
- Fluid in the peritoneal space silhouettes with organs and causes reduced contrast
- Inflammation of the mesentery causes an increase in opacity of the fat which silhouettes with the organs reducing contrast
- Neoplasia in the peritoneal space causes reduced contrast

Retroperitoneal space

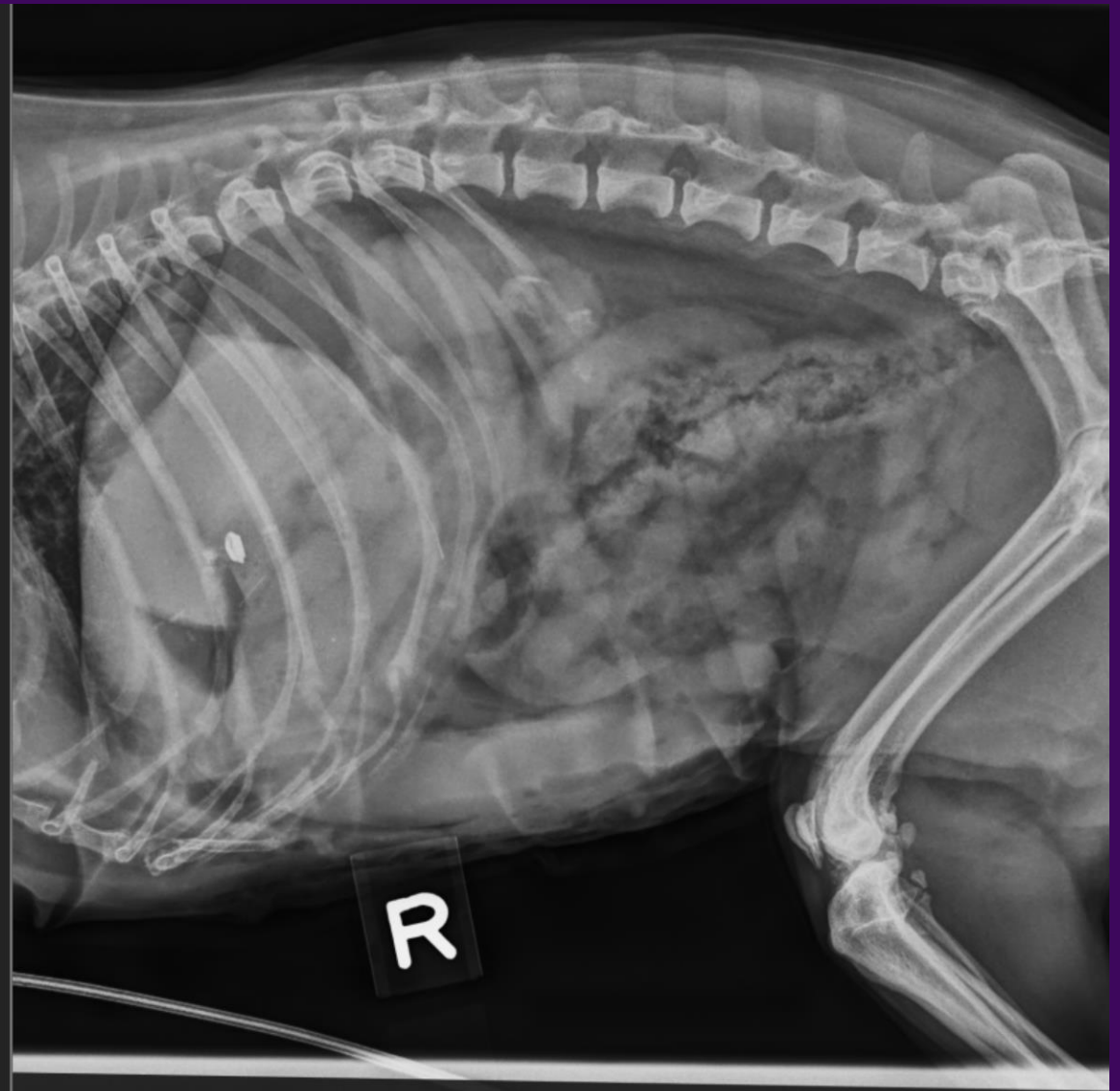
- Dorsal or “behind” the peritoneum
- Has an adventitia rather than serosa – therefore no serosal detail, instead peritoneal contrast or peritoneal detail
- Retroperitoneal structures
 - Kidneys and ureters
 - Adrenal glands
 - Lymph nodes and lymphatics
 - Vessels (cava, aorta) and neural tissue
 - Connective tissue and fat

Reduced contrast differentials

- Fluid
 - Blood
 - Pus
 - Water
- Inflammation (e.g. peritonitis)
- Confluence of soft tissue
 - Lymphadenopathy
 - Fluid filled intestinal segments



Moderate peritoneal effusion
(where do we think the mass is coming from in the
right cranial abdomen?)



Pneumoperitoneum



Retroperitoneal effusion