

## What's Your Diagnosis?

**Signalment:** 5 year old MC Belgian Malinois

**Presenting Complaint:** Perineal hernia as well as not eating or defecating

### History:

The patient presented to the KSU VHC on 7/28/2018 for repair of a perineal hernia. Ram has been straining to defecate, was lethargic and losing weight. Previous veterinarians performed an enema to clear out feces. No blockage was observed on a contrast radiograph and after the surgery defecation was in small, hard pieces. Appetite was reduced after the surgery. Upon presentation at KSU VHC bilateral perineal hernias were diagnosed on rectal palpation. After blood work diagnostics were began to determine the full problem.

### Physical Exam Findings:

- Pulse = Strong
- HR = 110
- RR = 30
- Weight = 28.9 Kilograms
- Temperament = Bright, Alert and Responsive
- Abnormal oral cavity (canines were brown)
- Abnormal Digestive System (straining to defecate)
- Abnormal Urinary System (urinating in the house)

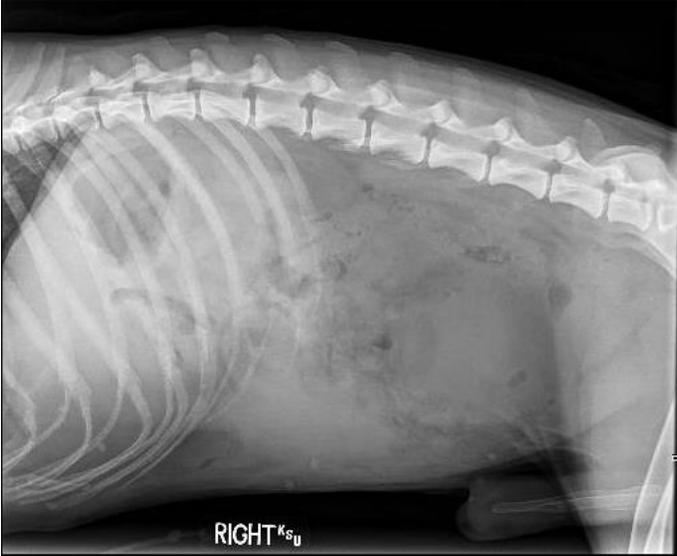
### Clinical Pathology Test Results:

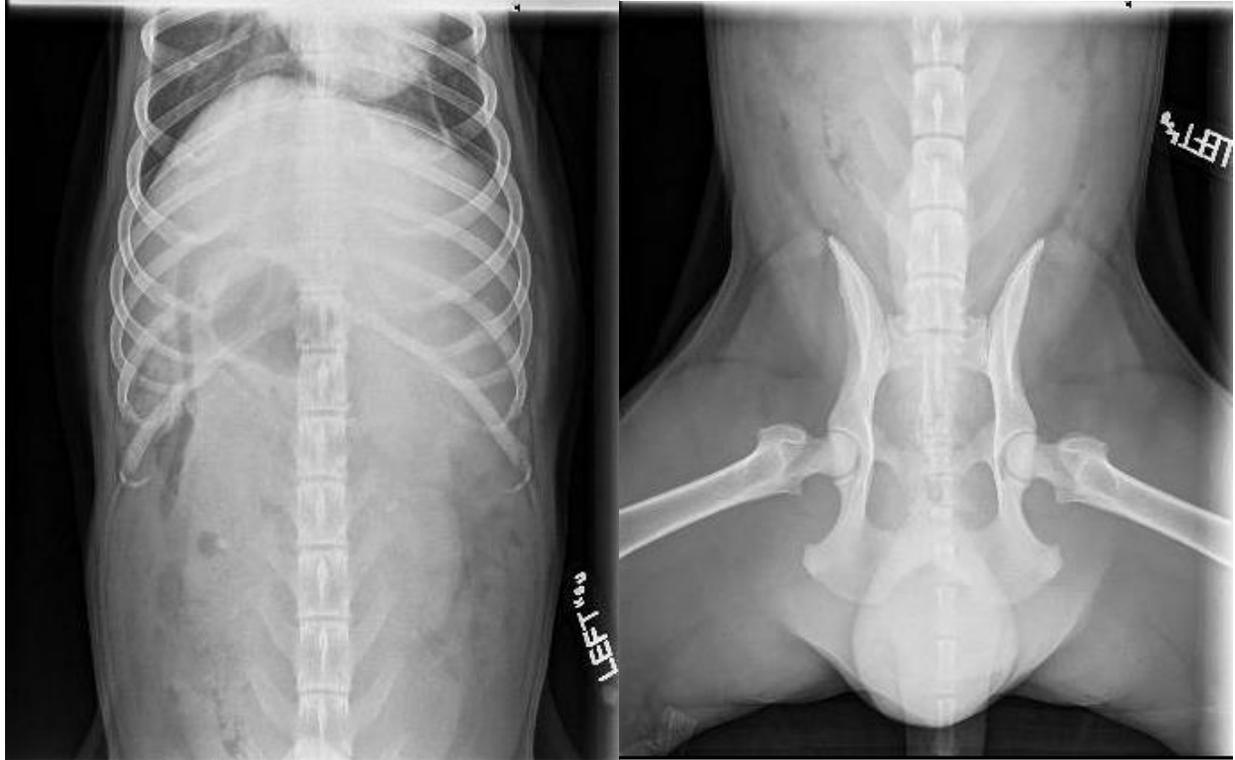
- CBC – Acute Inflammatory leukogram
- Peritoneal Fluid Analysis – Marked neutrophilic inflammation with bacterial sepsis
- Culture – Abundant E. coli

### Diagnostic Plan:

Step 1 – Abdominal Radiographs







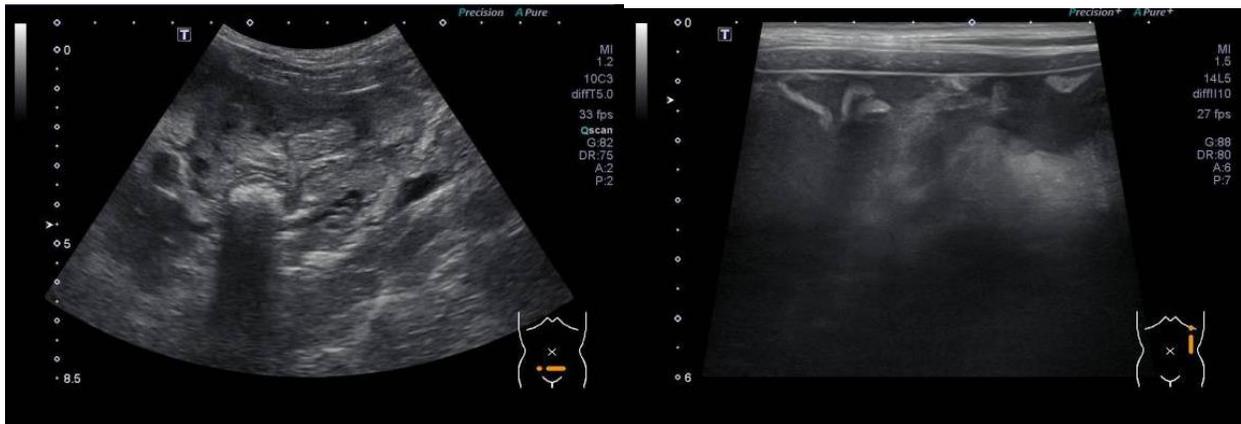
### **3 View Abdominal Radiograph Findings:**

Extrathoracic soft tissue is normal. Musculoskeletal structures are normal. The abdominal contour is normal. Loss of serosal detail is seen diffusely throughout the entire abdomen. Nodules of heterogeneous soft tissue opacity are present in the ventral abdomen and positioned cranially to the bladder and along the left body wall lateral to the kidney. Noncontained gas opacities are scattered through the abdomen.

### **Abdominal Radiographic Impressions:**

- Free gas and peritoneal effusion is consistent with septic peritonitis.
- Nodular abdominal structures have differentials of loculated fluid accumulation, nodular reactive peritonitis, or carcinomatosis.
- Perianal hernia

**Post Radiograph Recommendation:** Abdominal ultrasound

Step 2 – Abdominal Ultrasound**Ultrasound Findings:**

The bladder wall is diffusely moderately thickened with retention of normal wall layering. Wall thickness up to 6.1mm. The bladder is mildly distended with anechoic speckled content and there is a focal, irregularly ovoid hypoechoic luminal structure along the dependent aspect which is mobile on ballottement. The prostate retains a typical shape to a large degree with diffuse mild mottling throughout and multifocal to coalescing anechoic foci throughout the parenchyma. There are several peripheral wedge shaped hypoechoic foci noted throughout the parenchyma. Prostate measures 32.1x63.6mm. Arising from the left dorsolateral margin of the prostate there is a poorly marginated, ill defined, heterogenous region of tissue which extends intra-abdominally along the ventral and left ventrolateral abdominal cavity. Associated with this structure are multifocal discoid to linear hyperechoic foci, some of which show twinkling artifacts and some of which show subtle distal shadowing. On deep transducer pressure/ballottement, there is mobility of some of the linear echoes. There is a cluster of prominent vascularity associated with the aforementioned caudal abdominal pathology. The testis are bilaterally symmetrical with normal architecture however the epididymii appear plump and enlarged and this extends along the spermatic cord. Blood flow is patent throughout. The medial iliac lymph nodes are moderately enlarged and hypoechoic however they retain their normal S:L axis ratio. Mild perinodal hyperechogenicity noted. There is a moderate amount of highly echogenic free abdominal fluid. There are hyperechoic linear shadowing foci scattered along the uppermost peritoneal surface representing free abdominal gas.

**Ultrasound Impressions:**

- Prostatopathy with changes most consistent with BPH and multifocal sub-acute prostatic infarcts.
- Suspect ruptured prostatic abscess or infected and rupture para-prostatic cyst.
- Cellular abdominal effusion and pneumoperitonium consistent with septic peritonitis.
- Mild cystopathy - however the lack of marked bladder distention may affect the perceived degree.
- Suspect associated testicular/spermatic cord edema.

**Diagnosis After Surgery: Paraprostatic Cyst & Septic Peritonitis**

**Outcome:** The patient was recovering in the ICU and receiving treatments for septic peritonitis.

**Discussion:**

Paraprostatic cysts are embryonic remnants of the female reproductive tract that develop outside of the parenchyma in males and adhere to the capsule of the prostate. Treatment of a paraprostatic cyst would require surgical exploration and debulking of the cyst. A paraprostatic cyst is also likely to recur as long as the male patient is an intact specimen. Signs of a paraprostatic cyst occur once the cyst has become large enough to place pressure on surrounding organs or cause abdominal distension.

Septic peritonitis is an inflammation of the serous membrane of the peritoneal cavity caused by bacterial growth. Septic peritonitis occurs due to contamination of the peritoneal cavity by bacteria which can be due a mass, perforation, infection or other disease processes. Septic peritonitis can be tested through culturing and testing of the infectious exudative effusion within the peritoneal cavity. Septic exudate is ideally caused by intracellular bacteria and degenerate neutrophils can be observed. Care must be taken when testing for septic peritonitis because an absence of organisms does not actually rule-out sepsis.