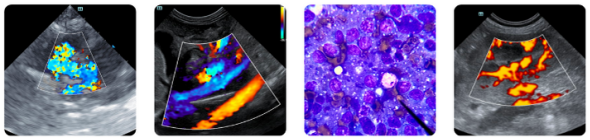


SonoPath.com info@sonopath.com 1.800.838.4268

PATIENT
Pickles Huff

SPECIES
Canine

BREED
Pug

SEX
Male

AGE
16 weeks

WEIGHT
4.5 lbs

INTERPRETED BY
Remo Lobetti, BVSc, MMedVet (Med), PhD, Dipl. ECVIM

IMAGING PERFORMED BY
Keisha Smitley, CVT

HOSPITAL NAME
Geary VS

REFERRING VET
Dr. Geary

INVOICE
68831

DATE
11/19/25

Signalment
3-month-old male Pug.

History
Acute onset hyporexia, lethargy, vomiting, labored breathing. Minimal response to symptomatic therapy.

Physical Exam
Dehydrated, weight loss.

Therapy
Antibiotics, intravenous fluids, Cerenia, famotidine and metoclopramide.

Hematology
Mild non-regenerative anemia.

Mild monocytosis (1.2).

Urinalysis
SG 1.015.

Proteinuria

Glycosuria

Bacteruria.

Hyaline casts.

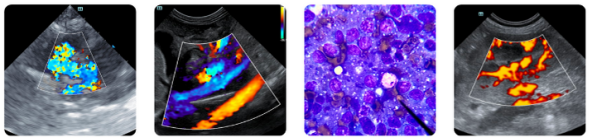
Culture pending.

Serum Biochemistry (11/17)
Severe azotemia – SDMA 52, creatinine 3.9, urea > 130.

Severe hyperphosphatemia (> 16).

Hyperkalemia (6.4)

Mildly elevated pancreatic lipase and amylase.



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Serum Biochemistry (11/19)

Progressive azotemia – SDMA 72, creatinine 4.1, urea > 130.

Ongoing severe hyperphosphatemia (> 16).

Serology for Vector-borne Diseases

Negative.

Survey Radiographs

Diffuse pulmonary interstitial pattern with possible alveolar lung pattern in the left cranial lung lobe.

Bilateral renomegaly.

Abdominal Ultrasound

Normal renal size with mild parenchymal changes but no pyelectasia.

Urinary bladder sediment.

Findings

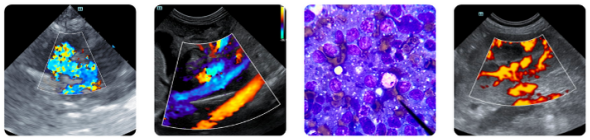
- Progressive acute kidney injury.
- Bacteruria.
- Non-regenerative anemia.
- Pulmonary disease.
- Monocytosis
- Elevated pancreatic markers.

Interpretation

The acute onset of clinical signs, progressive azotemia, hyperkalemia, hyperphosphatemia, glycosuria, and hyaline casts are all typical for acute injury with important etiologies being infectious (leptospirosis, bacterial nephritis, sepsis) and toxic (grapes, raisins, drugs, ethylene glycol). Ischemia would be less likely and juvenile nephropathy highly unlikely as the kidneys appear relatively normal on ultrasound. Although rare, immune-mediated interstitial nephritis, secondary to an infection or drug exposure should also be considered.

Young dogs (especially < 3-4 months) are at an increased risk for acute kidney injury as they have immature nephron function with reduced concentrating ability; a higher fluid turnover than can result in rapid onset of dehydration; and an increased susceptibility to toxins.

The bacteruria may be indicative of UTI with possible secondary bacterial nephritis.



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The non-regenerative anemia can be ascribed to the patient's age (physiological) rather than representing anemia associated with an erythropoietin deficiency associated with chronic kidney disease.

The most likely etiology for the pulmonary disease would be pneumonia – bacterial or viral and may have resulted in sepsis with secondary acute kidney injury.

The monocytosis can be ascribed to systemic inflammation and/or possible bacterial infection.

The elevated pancreatic markers can be ascribed to decreased perfusion rather than primary pancreatic disease, the latter also highly unlikely in a 3-month-old dog.

Further Assessment

- Pending urine culture.
- Blood pressure.
- PCR for leptospirosis.

Management

- Fluid therapy
  - Correct dehydration and once corrected, ensure and maintain normal hydration.
  - Avoid overhydration as pulmonary edema can develop.
  - Replace any ongoing losses that may be present.
  - Correlated and match fluid administration with urine production
- Electrolyte anomalies
  - Hyperkalemia: if no improvement with fluid therapy or progressive elevation, then calcium gluconate and/or insulin and dextrose if needed.
  - Acidosis: fluid therapy and if access to blood gas, then intravenous bicarbonate if needed.
  - Hyperphosphatemia: enteric phosphate binders.
- Monitor and support urine output and if oliguric/anuric:
  - Ensure that patient is fully hydrated.
  - Intravenous dextrose and/or mannitol.
  - Hemodialysis or peritoneal dialysis if there is still no urine production and there is progressive hyperkalemia and azotemia.
- Treat any underlying etiology (if present or identified):
  - Antibiotics for bacterial infections.
  - Amoxicillin-doxycycline pending leptospirosis results.
- Systemic support
  - Antiemetics (maropitant, ondansetron)
  - Opioid analgesics if needed.
  - Nutritional support with a good quality protein diet. Tube feeding if needed.

Monitoring

- Urine production – 1-2 mls/kg/hour.
- Body weight.
- Pulmonary auscultation.
- Potassium.
- Degree of azotemia.

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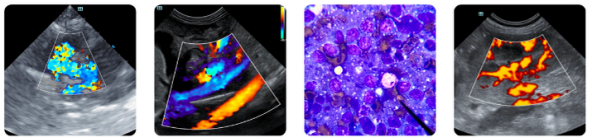

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Educational Teleconsultation Services™

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Remo Lobetti, BVSc, MMedVet (Med), PhD, Dipl. ECVIM (Internal Medicine)

info@sonopath.com