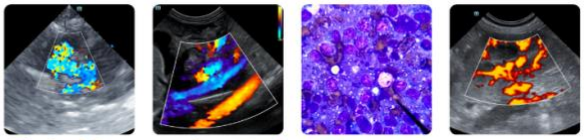

PATIENT

Gizmo Schwalm

SPECIES

Canine

BREED

Basset Hound

SEX

Neutered Male

AGE

8 Years

WEIGHT

48.2 kg

INTERPRETED BY

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS

IMAGING PERFORMED BY

Dr. Meghan Myers

HOSPITAL NAME

Hershey Animal Emergency Center

REFERRING VET

Dr. Shally Gastelu

INVOICE

16275

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06/03/26

PRESENTING CLINICAL SIGNS

Gizmo presented to HAEC on 6/3/26 at 10pm for non-weight bearing on the right front leg. Gizmo originally presented to HAEC on 6/2/26 for vomiting, a decreased appetite, and soft orange stools. On physical exam he was febrile and his mucous membranes were mildly tacky, he had cranial organomegaly, erythema and moisture of all four paws, bilateral popliteal (+/- left prescapular) lymphadenopathy, bilateral stifle crepitus, grade 2/4 MPL left stifle, and had difficulty rising the hind end. PE: Abdominal: Cranial organomegaly. Musculoskeletal: Short shuffling gait, mild shifting limb lameness, grade 2/4 medial luxating left patella, crepitus bilateral stifles, reduced range of motion hips, difficulty rising in hind end. Grade 4/5 lameness of right front; small cystic-like structure located between digit 2 and 3 on the palmar aspect. chronic skin disease

EPOC: BUN 4 L, Potassium 3.4 L, pH 7.409, BE -9.3 L, TCO2 14.6 L, Bicarb 15.4 L, pCO2 24.3 L CBC: MCV 58.7 L, Retic Hb 19.7 L, Lymphocytes 0.57K L, Eosinophils 0.01K L, Platelets 45K (<50K on inVue) Platelet estimate from blood smear: 27,000-36,000 Chem15: BUN 3 L, ALP 345 H Catalyst pancreatic lipase: 88 4DX: Negative for Heartworm, Lyme, Ehrlichia, Anaplasma Radiologist interpretation - Moderate hepatomegaly. - Moderate splenomegaly. -There is no evidence of pyloric outflow obstruction or small intestinal mechanical obstruction on the current study. Minimal soft tissue opaque material is present within the stomach. EPOC: pO2 135,cSO2 99.1, pCO2 29.8, TCO2 16.8, BE -7.6, BUN 4 PT/aPTT: 13.5 (n)/95.9(L)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra to a depth of 2.0 cm presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized, and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **residual prostate** measured 1.0 cm.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 7.9 cm in length. The right kidney measured 8.9 cm in length.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.6 cm width. The right adrenal gland measured 1.01 cm width at the cranial pole and 0.67 cm width at the caudal pole.

Spleen

The **spleen** presented mildly enlarged and folded upon itself with a uniform parenchyma, consistent with reactive spleen or possible splenitis. Minor potential for emerging round cell neoplasia.

Liver

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The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed an unremarkable stomach and small intestine regarding structure. There were minor areas of luminal fluid noted. There was no evidence of obstructive pattern. Curvilinear patterns were retained throughout the gastrointestinal tract. Areas of hyperperistalsis were noted. This is consistent with response to irritation. The colon was unremarkable.

Pancreas

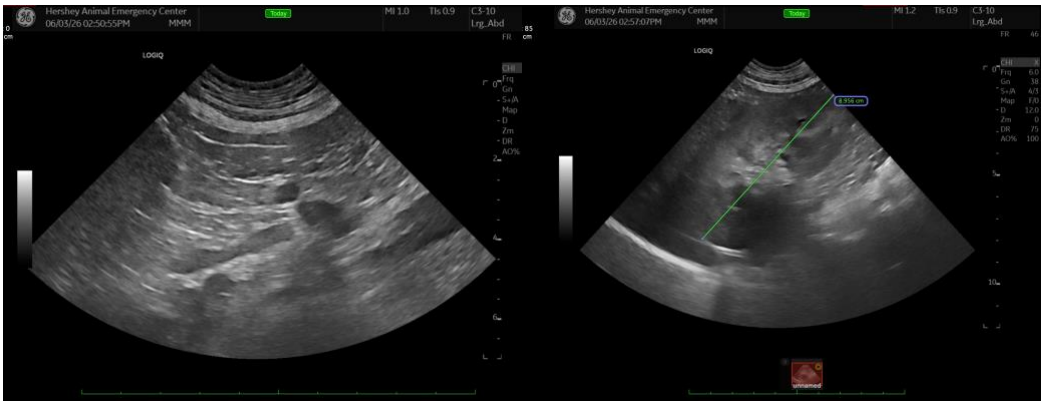
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some mild parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

ULTRASONOGRAPHIC FINDINGS

- Reactive spleen.
- Gastroenteritis presentation.
- Unremarkable age-related abdominal changes otherwise.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Dietary indiscretion, food intolerance, structurally insignificant inflammatory bowel or occult parasitism and occult Addison's are all potentials. Enterotoxin is suspected.



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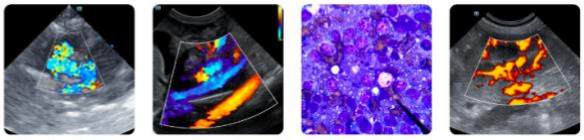

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS,

CEO, Owner, Founder -- SonoPath.com

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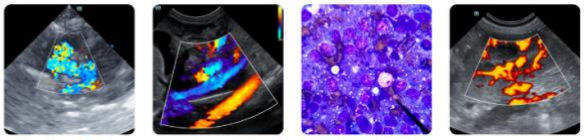

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FEVER OF UNKNOWN ORIGIN

DESCRIPTON Fever of unknown origin (FUO) is any fever greater than a few days duration in which the cause is not obvious on initial history and physical examination. Important etiologies are infectious disease, immune-mediated diseases, and neoplasia. The common causes of FUO were summarized concisely in a presentation at the American College of Veterinary Internal Medicine 2004 Forum as follows:

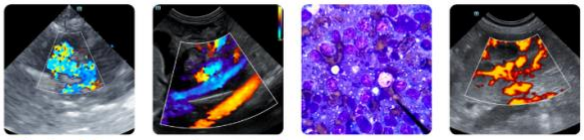
Final Diagnosis	Bennett (Dogs & Cats)	Dunn and Dunn (Dogs Only)	Lunn (Dogs & 1 cat)	Total	Percent
Infection	21	16	10	47	28
Immune	18	22	6	46	27
Bone Marrow Disease	4	22	2	28	16
Neoplasia (outside marrow)	0	10	2	12	7
Miscellaneous	2	12	2	16	9
No Diagnosis	0	19	2	21	12
TOTALS	45	101	24	170	99

The types of infection diagnosed in this case series were varied, ranging from discospondylitis (8 cases), blastomycosis (6 cases), and bacterial endocarditis (4 cases), to leishmaniasis (1 case), prostatitis (1 case), and Ehrlichia canis infection (1 case); a multitude of other infectious causes also fell within the spectrum. Of the cases where immune-mediated disease was found, 44% had immune-mediated polyarthritis. Bone marrow diseases included myeloproliferative disease, myelodysplasia (8 cases), lymphocytic leukemia (8 cases), myeloma (3 cases), chronic granulocytic leukemia (3 cases), lymphoblastic leukemia, and malignant histiocytosis. The types of neoplasia located outside the bone marrow included lymphoma (6 cases), metastatic disease (2 cases), and neoplasms of the lung, spleen, and stomach. Finally, miscellaneous diseases included hypertrophic osteodystrophy (6 cases), meningitis (3 cases), portosystemic shunt (3 cases), lymphadenitis (2 cases), panosteitis, and intervertebral disc disease. Overall, the most common causes across all cases were polyarthritis (44 cases), lymphoid neoplasia (15 cases), discospondylitis (8 cases), myelodysplasia (8 cases), hypertrophic osteodystrophy (6 cases), and blastomycosis (6 cases).

CLINICAL SIGNS Animals usually present with either persistent or waxing and waning fevers ranging from 103–106˚F (39.5–41˚C). Other clinical signs depend on the underlying cause of the fever. Careful and thorough physical examination is required to assess potential causes. History and physical examination represent the first, best, and least expensive opportunity to localize the disease process causing the fever.

DIAGNOSTICS FUO etiologies are partly related to geography and thus, locale or travel history should factor into a practitioner's diagnostic approach. A patient's lifestyle may also provide clues regarding exposure to certain etiologic agents. Therefore, obtaining a thorough history can unveil important pieces of the diagnostic puzzle. Physical examination is especially important and should include an inspection of all accessible lymph nodes, palpation and movement of the joints, a fundic examination, a neurological evaluation, spinal and limb palpation and range of motion tests, and a rectal examination.

A minimum database should include a CBC reviewed by a clinical pathologist, as well as a biochemical profile and urinalysis and retroviral testing in cats. In areas where tick-borne disease is prevalent, in-house testing should be performed early. Advanced laboratory work can include urine culture, blood culture, and infectious disease panels (PCR and/or serology). In dogs, one may screen for the following infectious agents: Ehrlichia spp., Borrelia burgdorferi, Rocky Mountain Spotted Fever, Bartonella spp. (culture and PCR), and Leptospira spp. in cases of hepatic or renal involvement. In cats, one should evaluate for FeLV,



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FIV, feline infectious peritonitis (FIP) virus, toxoplasmosis, Hemoplasma spp. (Mycoplasma), and Bartonella spp. (culture and PCR). Testing for Ehrlichia spp., Rickettsia spp., and Anaplasma phagocytophilum can also be considered. A fungal assay is indicated if the patient lives in or has had exposure to a region with a higher incidence of fungal disease. Other infectious disease tests may be performed depending on the geographical location of the pet. Screening for Brucella should be done in breeding dogs. Immune-mediated disease screening can include a Coombs test, a slide agglutination test (if the patient is anemic), and an antinuclear antibody (ANA) test. Immune disease is often a diagnosis of exclusion.

Imaging should include thoracic radiographs, abdominal ultrasound, and/or abdominal radiographs. Ultrasound can be very useful for assessing evidence of cholangiohepatitis, pyelonephritis, chronic urinary tract infection, abscess formation, peritonitis, and neoplasia. It also permits an examination of the intra-abdominal lymph nodes. An echocardiogram can offer assessment for vegetative endocarditis, whereas spinal radiographs offer assessment for discospondylitis. In cases where all other testing has proven negative and the patient has not responded to broad-spectrum antibiotics and supportive care, arthrocentesis should be considered to evaluate for septic joint disease, immune-mediated polyarthritis, and infectious disease. Finally, one can consider assessing the cerebrospinal fluid for meningoencephalitis, GME, and meningitis/arteritis. A bone marrow exam should be performed if blood dyscrasias are noted on the CBC.

TREATMENT Treatment of the fever depends entirely on the underlying cause. Ideally, a thorough diagnostic plan will yield a diagnosis that will guide the appropriate therapeutic course. However, if an exhaustive approach has not produced a definitive diagnosis and there is no response to broad-spectrum antibiotics, trial therapy with immunosuppressive agents such as prednisolone can be considered to treat presumed immune-mediated diseases. Given the potential for negative sequelae should an underlying infection be present, one must be certain that the investigation is thorough and monitor the patient's response carefully.

CONCLUSION If a documented fever has not responded to antibiotics, antipyretics, or general nursing care, it is important to obtain a diagnosis to guide more specific treatment. A systematic physical examination and thorough history-taking will help inform further diagnostics in addition to what is revealed by the minimum database.

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