AMC
SINCE 1910
ANIMAL MEDICAL CENTER

THE ELMER AND MAMDOUHA BOBST HOSPITAL | CASPARY RESEARCH INSTITUTE
THE INSTITUTE FOR POSTGRADUATE EDUCATION | THE CANCER INSTITUTE | USDAN INSTITUTE FOR ANIMAL HEALTH EDUCATION

rDVM QUARTERLY

VETERINARY COMMUNITY NEWS FROM AMC SPRING 2018

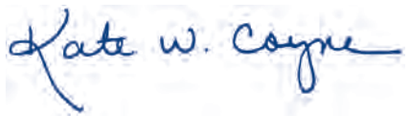
To Our Valued Partners In Care,

This year brings many exciting changes to the Animal Medical Center. In our ongoing effort to ensure AMC provides the best possible care for our pet patients and the best possible experience for our clients, including those you've referred to us, I am pleased to announce a short-term project is underway to renovate the hospital's second floor clinic. These improvements will provide a more streamlined check-in/check-out process; establish a separate waiting area for our feline patients; create additional treatment rooms to accommodate our expanding caseload; and build a more comfortable, user-friendly waiting area for both pets and their owners. We are looking forward to unveiling this modernized, redesigned space, which will appropriately reflect the high-quality care you expect from AMC.

In staff-related news, I am excited to share that Dava Cazzolli, DVM, DACVECC, a former AMC intern and resident, has returned to AMC as a staff specialist in our Emergency & Critical Care Service. We are pleased to have her back to join this busy and talented team. We also recently welcomed Britney McLean, Client Advocate, to the AMC family. Britney is primarily responsible for managing the client experience on the second floor. You can learn more about her in this newsletter.

At the end of February, AMC bid a fond farewell to Dr. Richard Goldstein, who served as Chief Medical Officer since 2012. During our transition period, we want to assure you that the clients and patients you refer to us will still receive the highest level of care. We are grateful that you have entrusted us with your patients and thank you for your ongoing support.

Sincerely,



Kate

Kathryn Coyne
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AMC Welcomes Britney McLean, Client Advocate

Interview by Liana Everaert, Executive Director of Client Relations

Liana: *Why did you choose to be a Client Advocate here at AMC?*

Britney: As the largest and most advanced veterinary center in America, the Animal Medical Center is a leading hospital for animal-loving professionals. Working alongside such an outstanding team while doing what I love—helping people and their beloved pets—has always been a dream of mine.

Liana: *Can you tell us more about your background in assisting pet owners?*

Britney: Before coming to AMC, I spent six years as a manager in one of the largest dog daycare centers in Manhattan, Biscuits & Bath. There, I developed my passion for helping people access elite level care for their four-legged family members. I oversaw all the services, including daycare, grooming, training, and primary veterinary care, while providing high level client support.

Liana: *What specific skills do you have that best equip you for the Client Advocate role?*

Britney: I am a natural born helper who rises to any challenge and thrives on troubleshooting issues that can improve the overall client experience. As a devoted pet owner, coupled with my previous work experience, I know how traumatic it can be when a loved one is sick and understand that each person reacts differently under this type of stress. My focus is on building relationships with clients to make them feel comfortable while exceeding their customer service expectations.

Liana: *Do you see the Client Advocate role expanding?*

Britney: Being the first Client Advocate has been a wonderful learning experience and I only hope to see more advocates join the team. Currently, I am working on furthering my relationships with the individual medical services so that I provide a proactive service recovery when needed. Expanding the team would be welcomed as the AMC ER is open 24/7, and having full coverage to support all our clients would enhance our client experience.

AMC's Cancer Institute Helps Develop New Breast Cancer Treatment

Dallas Pink, shown here, has successfully completed treatment for mammary gland cancer at the Animal Medical Center. She is part of an ongoing clinical trial in collaboration with researchers at Albany Medical College. AMC's oncologists are studying the effect of a peptide derivative of alpha fetoprotein (AFPep) on canine mammary gland tumors. Alpha fetoprotein is produced by the human fetus *in utero* and lowers the risk of breast cancer in women who have been pregnant. Scientists at Albany Medical College have identified the active site of alpha fetoprotein and synthesized a peptide containing that portion of the molecule to use as a treatment against breast cancer. Hopefully, this canine study will lead to data supporting a human clinical trial of AFPep.

If you have a canine patient with a mammary tumor > 2cm in size, either benign or malignant, with a life expectancy of three months and is a good candidate for surgical removal of the mammary tumor, your patient may be eligible. The dog's family must also agree to have their dog receive daily injections for seven consecutive days, which can be done at your office if the location is more convenient for them than coming to AMC. The study covers the cost of pre-surgical testing and surgery. Contact Dr. Ann Hohenhaus at 212-329-8800 or ann.hohenhaus@amcny.org for more information or to enroll an eligible patient.

Ann Hohenhaus
DVM, DACVIM
Oncology
ann.hohenhaus@amcny.org
212-329-8612

AFPep protocol

Proof of concept and safety in tumor bearing dogs

Dog
- Mammary gland tumor
- Benign or malignant
- >2cm
- Life expectancy >3 m
- Owners willing to give injections

Preanesthetic screen
- CBC
- Chemistry
- UA
- CXR
- AUS

Exclude for:
- Major organ dysfunction
- Extensive metastatic disease

Day 1
Biopsy tumor
- proliferation markers

Blood sample
- pre/post AFPep injection #1

Days 2–7
AFPep injections

Day 8
- Blood sample
  - CBC, chemistry
  - pre/post AFPep injection #7
- Mastectomy +/- OHE
- Histopathology
- Proliferation markers

Study ends at discharge

Gross Pathology: What's Your Morphologic Diagnosis?

Signalment: 14 year-old, male neutered, domestic shorthair cat.

History: A 14-year-old, male neutered, indoor only, domestic shorthair cat presented to the Emergency Service for respiratory distress. He had been treated long-term with cyclosporine and prednisone for presumed immune mediated polyarthropathy. Radiographs at that time were concerning for potential bronchopneumonia and abscess formation. The patient was discharged for at home care with antibiotic therapy. The patient re-represented for respiratory distress. Bloodwork revealed a severe leukopenia, mildly elevated AST, and mild hypoalbuminemia. The patient was hospitalized for continued medical management with oxygen therapy. Repeat CBCs during hospitalization showed a mild anemia with persistent neutropenia, lymphopenia, and eosinopenia. Repeat radiographs and CT revealed a progressive lung pattern with nodule formation. The patient continued to decline despite therapy and euthanasia was elected.

Necropsy Findings: Filling the tracheal and main stem bronchi lumens is a large amount of moderately viscous, translucent, red fluid. The lungs do not collapse upon entering the thoracic cavity. The thoracic cavity contains approximately 45 ml of a moderately viscous, translucent, red fluid mixed with fibrin. Randomly distributed over all lung lobes are hundreds of discrete to coalescing, variably demarcated, firm, tan nodules that range from pinpoint to 4 cm x 3.5 cm x 2 cm [Figure 1]. On section, these nodules are comprised of firm, tan regions separated by a rubbery, dark red parenchyma [Figure 2]. In addition, within all lung lobes are dozens of sharply demarcated, 0.1 to 0.2 cm in diameter, dark red foci. From the cut surfaces of all lung lobes oozes a large amount of non-viscous, translucent, red fluid. Sections of lung nodules alone sink in 10% buffered formalin. The remaining lung lobe sections float in 10% buffered formalin.

Please formulate differential diagnoses based upon the history, clinical findings, and images before turning the page.

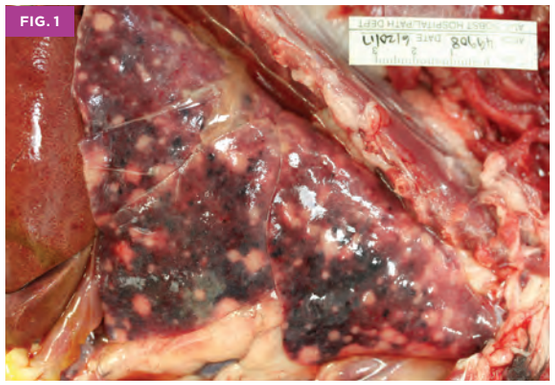
FIG. 1

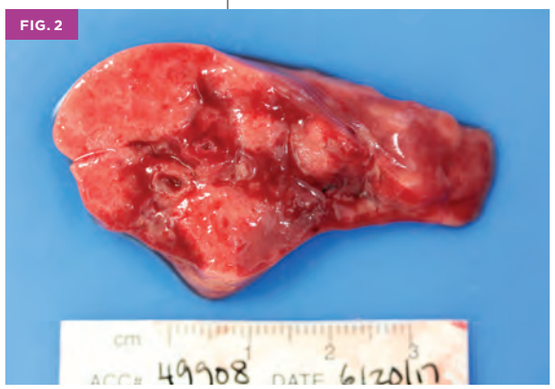
FIG. 2

Heather Daverio
DVM, DACVP
Anatomic Pathology
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212-329-8684

Cytology: Touch imprints of the left caudal lung lobe are comprised of respiratory epithelial cells, macrophages, neutrophils, and rare multinucleated giant cells on a hemodiluted background. Within macrophages and free in the background are single or aggregated crescent to ovoid-shaped organisms with pale blue cytoplasm and a polar nuclei (protozoal tachyzoites). [Figure 3]

Histology: The alveolar spaces are diffusely filled by abundant macrophages, neutrophils, lymphocytes, and plasma cells mixed with large amounts of necrotic cellular debris, fibrin, and free tachyzoites. Inconsistently the alveolar spaces contain small amounts of hemorrhage. The alveolar septa are multifocally indistinct and replaced by a fibrillar, eosinophilic material and karyorrhectic debris (fibrin and necrosis). The remaining alveolar septa, as well as the bronchiolar and bronchial interstitium are thickened by macrophages, neutrophils, lymphocytes, plasma cells, and eosinophils mixed with fibrin. The alveolar septa are commonly lined by proliferative/hyperplastic type II pneumocytes. The bronchiolar epithelium is multifocally necrotic. Frequently macrophages, pneumocytes, and bronchiolar epithelial cells are distended by numerous 2-4 cm, round, basophilic, intracytoplasmic tachyzoites. Free tachyzoites are present within the interstitium. Multifocally the pleura is infiltrated by a similar inflammatory infiltrate and the surface is multifocally covered by fibrin. The perivascular tissue is variably expanded by edema. [Figures 4-6]

Morphologic Diagnosis:

1. Pneumonia, bronchointerstitial, fibrinonecrotizing, granulomatous, neutrophilic, lymphoplasmacytic, eosinophilic, chronic, multifocal to coalescing, severe with numerous intrahistiocytic, intraepithelial, and free tachyzoites, severe intra-alveolar fibrin and edema, multifocal pulmonary hemorrhages, moderate type II pneumocyte hyperplasia, and mild fibrinous pleuritis
2. Edema, perivascular, multifocal, mild to moderate

Comments: The gross finding of randomly distributed, consolidated regions in the lungs was consistent with a severe, multifocal to coalescing pneumonia and a bronchointerstitial pattern was identified microscopically. Bronchointerstitial distribution indicated a manifestation of injury to both the bronchiolar and alveolar epithelium, as can be seen with aerogenous viral infections, infectious agents, diffuse alveolar damage (as with ARDS), or toxins metabolized by the Clara cells and type II pneumocytes.[5] Cytology of the lungs confirmed the presence of organisms consistent with protozoal tachyzoites (compatible with toxoplasmosis). Additional protozoal organisms associated with pneumonia in cats include *Neospora caninum*, *Histoplasma* spp., *Pneumocystis carinii*, *Encephalitozoon* spp., and *Sarcocystis* spp.[4] Cyto- and histomorphologic features were most compatible with *Toxoplasma gondii* and antemortem titers confirmed infection (IgG of 1:12800 and IgM of 1:100). Microscopic examination confirmed disseminated toxoplasmosis with subsequent multi-organ inflammation and necrosis.

Toxoplasma gondii is a cyst-forming obligate intracellular coccidian parasite, for which cats are the definitive host.[1–6] Cats are unique in that they can serve as both intermediate hosts (extra-intestinal life cycle) and definitive hosts (intestinal life cycle).[4,5] This case is an example of the former. Routes of transmission include ingestion of food or water contaminated with infected feces (sporulated oocysts), ingestion of tissue cysts in infected animal tissues

References:

1. Anfray P, Bonetti C, Fabbrini F, et al. Feline cutaneous toxoplasmosis: a case report. *Vet Dermatol*. 2005;16(2):131-6.
2. Cohen TM, Blois S, and Vince AR. Fatal extraintestinal toxoplasmosis in a young male cat with enlarged mesenteric lymph node. *Can Vet J*. 2016; 57(5): 483–486.
3. Evans NA, Walker JM, Manchester AC, Bach JF. Acute respiratory distress syndrome and septic shock in a cat with disseminated toxoplasmosis. *J Vet Emerg Crit Care* (San Antonio). 2017;27(4):472-478.
4. JPC Veterinary Systemic Pathology Online, Respiratory System, October 2014, P-P01. www.askjpc.org/vspo/index.php
5. Maxie M. Jubb, *Kennedy & Palmer's Pathology of Domestic Animals*. 6th eds. Saunders Elsevier. 2015: vol 2: 236-238; 590.
6. Ming P, Congcong L, Zhao J, Shen B. Sixty Years (1957–2017) of Research on Toxoplasmosis in China—An Overview. *Front Microbiol*. 2017; 8: 1825.

FIG. 3

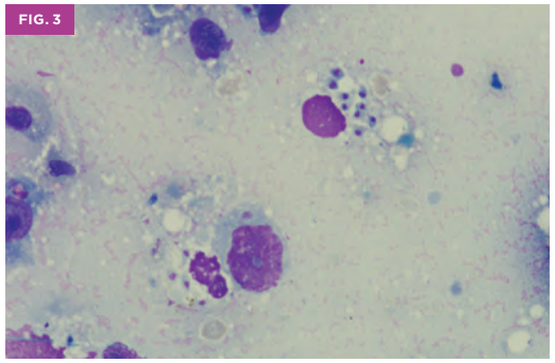


FIG. 4

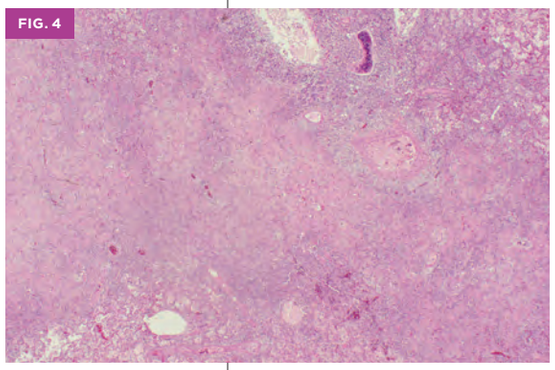


FIG. 5

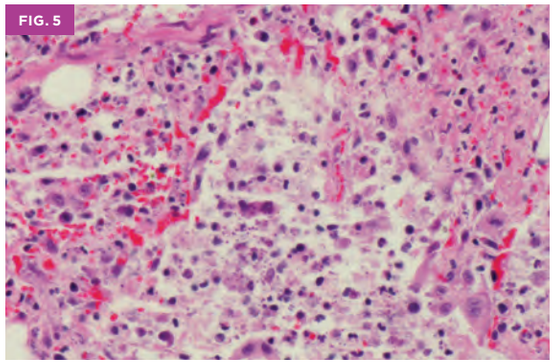
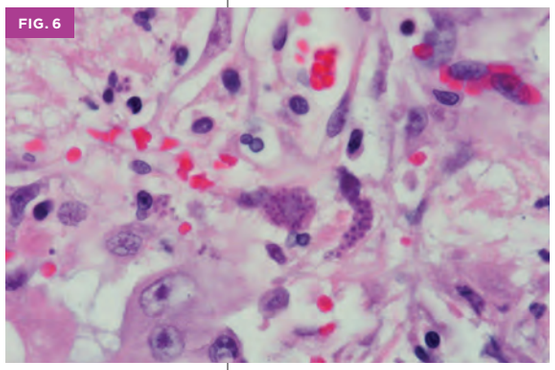


FIG. 6



(bradyzoites), and transplacental and transmammary infections (tachyzoites).[4,5] Dissemination occurs within lymphocytes, macrophages, granulocytes, or free in the plasma.[2,4,5] Rapidly dividing tachyzoites can replicate for indefinite generations and cause severe necrosis and damage to infected tissues.[2,5] The dormant/chronic form can persist over months to years and is characterized by tissue cysts in multiple organs. Re-activation of chronic cases occurs under certain circumstances (i.e. immunosuppression).[5]

Toxoplasma gondii parasitizes a wide range of intermediate hosts. Although ubiquitous, clinical disease is uncommon except for abortions in sheep, goats, and humans.[5,6] Feline toxoplasmosis is most often subclinical, but systemic infection infrequently occurs. Infection severity is determined by parasite strain, infecting dose, species, age, and immune status of the host.[5] Systemic toxoplasmosis occurs most often in young immunologically immature animals and in immunocompromised patients. Cell immunity appears to be important in controlling acute infection; and decreased levels of interferon gamma seen in immunocompromised patients appear to play a critical role in dissemination.[2,5] In this case, severe, systemic disease was attributed to prolonged immunomodulatory therapy. Clinical signs vary depending on the organs affected, but most consistently include fever, lethargy, anorexia, ocular and nasal discharges, and respiratory distress. With central nervous system involvement, variable neurological dysfunction can be seen.[1–6] As in this case, pneumonitis is typically the most prominent lesion in fatal, disseminated cases. Other common findings include necrotizing hepatitis, lymphadenitis, myocarditis, pancreatic necrosis, and nonsuppurative meningoencephalitis.[1–5]

What's your diagnosis?

Anthony Fischetti, DVM, MS, DACVR
Head of Diagnostic Imaging

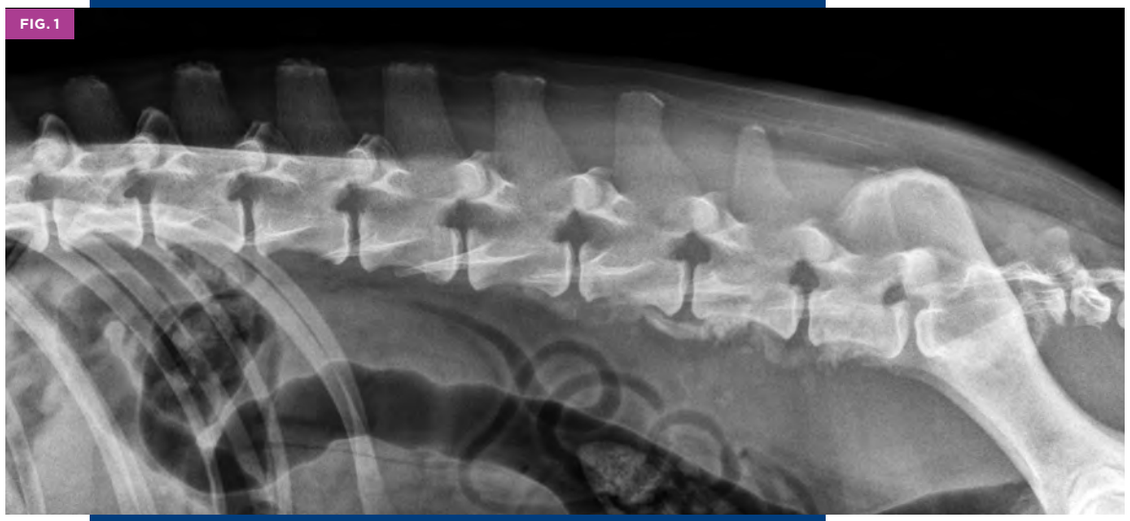
History: 8-year-old male, castrated mixed breed dog with intractable lumbar pain, progressive over the past week. The dog had recently been treated empirically with antibiotics after multiple bouts of hematuria. The treatment only partially improved the hematuria.

Figure 1. A single right lateral radiograph of the lumbar vertebral column was made to further evaluate the lumbar pain. A VD projection could not be obtained because the dog was too painful.

What's your Diagnosis?

Turn to page 12 for the diagnosis and case discussion.

FIG. 1



To help stay abreast of and contribute to advances in medicine, AMC offers cutting-edge continuing education programs to the veterinary community. In addition, AMC's veterinarians are involved in numerous scientific research studies intended to improve quality of life and reduce illness. Indeed, clinical research contributes to new knowledge that enhances our understanding of disease, strengthens diagnostic techniques, advances new therapies, and discovers better ways to diagnose illness. Much of this work is published in peer-reviewed scientific journals and/or presented at scientific meetings and conferences. *Edited by Philip Fox, DVM, DACVIM/DECVIM-CA*

CONTINUING EDUCATION

CONTINUING EDUCATION LECTURES

Our continuing education lectures are open to all area veterinarians and technicians and are FREE of charge. All lectures are held at AMC from 8:00–9:00 am, unless otherwise noted. AMC lecture topics and dates are subject to change. Please visit amcny.org/celectures or email education@amcny.org for up-to-date information. No registration is required.

AMC's Partners In Practice (PIP) seminars are free and CE accredited, but require registration. Visit amcny.org/pipseminars for more information and to register.

PIP COMPREHENSIVE CLINICAL CONFERENCES

Partners In Practice Comprehensive Clinical Conferences are intended to provide several hours of comprehensive review and updates of important and contemporary topics in veterinary medicine. Upon completion, participants should gain enhanced knowledge of the selected topic. Conferences are held at AMC on Sundays from 9:00 am–3:00 pm and are both RACE and NYSED approved.

October 14
New Perspective – Preventing Mange, Fleas, Ticks & Heartworms

November 4
Veterinary Technician Lecture

December 2
Cardiology

PIP PRACTICAL CLINICAL WORKSHOPS

Partners In Practice Practical Clinical Workshops are designed to promote sound diagnosis and effective therapies. Bring and share case materials if you wish! Participate in our time-honored teaching rounds and small group, interactive workshops. Space is limited to 15 participants, so register today! These PIP Workshops are held at AMC on Tuesday evenings from 7:00-8:30 pm and are NYSED approved.

April 10
Eye Urgencies & Emergencies

May 15
Advances in Rehabilitation

September 18
What's Your Diagnosis? X-Ray Reading Session

October 23
Contemporary Issues in Critical Care

RESEARCH HIGHLIGHTS

CURRENT CLINICAL TRIALS RECRUITING PATIENTS

(For more detailed information, visit amcny.org/clinicaltrials)

Cardiology

- The efficacy of isosorbide in the treatment of first time CHF in dogs with degenerative mitral valve disease

Internal Medicine

- Assessment of symmetric dimethylarginine (SDMA) and creatinine concentrations in cats with post-renal obstructions before and after decompression of the obstruction
- Comparison of constant rate intravenous infusion and intermittent intramuscular administration of regular insulin in cats with diabetic ketoacidosis
- Evaluation of the relationship between cobalamin and folate deficiencies and anemia in dogs

Integrative & Rehabilitative Medicine

- Effects of Dr. Buzby's Toe Grips® on lameness scores and client-specific outcome measures after canine tibial plateau-leveling osteotomy to treat ruptured anterior cruciate ligament

Interventional Radiology & Interventional Endoscopy

- Artificial neobladder placement for dogs with resectable lower urinary tract tumors
- Treatment of Extrahepatic Biliary Duct Obstruction (EHBDO) in dogs and cats by Endoscopic Retrograde Cholangiopancreatography (ERCP) with biliary stent placement or the use of a rescue Subcutaneous Intestinal Biliary Bypass Device (SIBB)

Oncology

- Trial of Her2-expressing vaccine in dogs with appendicular osteosarcoma
- Evaluation of efficacy and safety of feline interleukin-2 immunomodulator following surgical excision of feline fibrosarcoma
- Leukocytes infiltrating canine solid tumors may harbor oncogenic mutations
- Combination chemotherapy and immunotherapy for dogs with splenic hemangiosarcoma

AMC'S ANNUAL RESIDENT RESEARCH CONFERENCE

At AMC, every veterinarian in our Residency Training Program conducts an independent research study as part of the program and presents their findings in the 3rd year of their residency. These are summarized here.

Comparison intra-arterial vs. IV administration of chemotherapy levels to treat canine urinary tract tumors. (Dr. M. Kirsch)

- Certain agents may provide enhanced regional chemotherapy.

Total cystectomy with bilateral subcutaneous ureteral bypass. Five dogs with trigonal transitional cell carcinoma. (Dr. K. Kraska)

- This technique appeared to have merit and should be further studied.

Evaluation of cobalamin and folate deficiencies and anemia in dogs. (Dr. E. Stanley)

- Nonregenerative anemia was not related to reduced cobalamine and folate.

Magnetic resonance imaging characteristics of cats with lymphoma associated with the tympanic bulla. (Dr. B. Swanson)

- Lymphoma should be added as a differential diagnosis for vestibular disease.

Effect of cross-match on packed cell volume after packed RBC transfusion in transfusion-naïve, anemic cats. (Dr. B. Sylvane)

- Major cross-match testing may not be necessary prior to RBC transfusion in AB blood typed transfusion-naïve cats in most circumstances.

Safety of a ribose-cysteine supplement in healthy canine patients. (Dr. A. Verrilli)

- This supplement was safe, but did not appear to affect blood levels.

Morphology of the feline tricuspid valve apparatus and right ventricle in hypertrophic and dilated cardiomyopathy. (Dr. L. Wiley)

- Substantial differences in the tricuspid valve apparatus occur between types of cardiomyopathy.

Serum symmetric dimethylarginine and creatinine values measured in feline urethral obstruction. (Dr. K. Wilson)

- Both SDMA and creatinine tests provided practical and useful data in UO cats.

RESEARCH STUDIES IN PRINT

The Animal Medical Center's doctors contributed to and completed a number of research studies (AMC doctors are listed in bold font below), whose results have been published in scientific journals this quarter. These include a number of studies involving interventional radiology to manage urinary tract disease, collapsed trachea, minimally invasive surgery to resect pancreatic cancer, and a technique to manage esophageal strictures.

Oxford EM, Goggs R, Kornreich BG, **Fox PR**. ECG of the Month. *J Am Vet Med Assoc*. 2018 Feb 15;252(4):415-418.

Boswood A, Gordon SG, Häggström J, Wess G, Stepien RL, Oyama MA, Keene BW, Bonagura J, MacDonald KA, Patteson M, Smith S, **Fox PR**, Sanderson K, Woolley R, Szatmári V, Menaut P, Church WM, O'Sullivan ML, Jaudon JP, Kresken JG, Rush J, Barrett KA, Rosenthal SL, Saunders AB, Ljungvall I, Deinert M, Bomassi E, Estrada AH, Fernandez Del Palacio MJ, Moise NS, Abbott JA, Fujii Y, Spier A, Luethy MW, Santilli RA, Uechi M, Tidholm A, Schummer C, Watson P. Longitudinal Analysis of Quality of Life, Clinical, Radiographic, Echocardiographic, and Laboratory Variables in Dogs with Preclinical Myxomatous Mitral Valve Disease Receiving Pimobendan or Placebo: The EPIC Study. *J Vet Intern Med*. 2018 Jan;32(1):72-85.

Mcclaran JK, Pavia P, Fischetti AJ, **Donovan TA**. Laparoscopic Resection of a Pancreatic Cell Tumor in a Dog. *J Am Anim Hosp Assoc*. 2017 Nov/Dec;53(6):338-345.

Pavia PR, **Berent AC**, **Weisse CW**, Neiman D, Lamb K, Bagley D. Outcome of ureteral stent placement for treatment of benign ureteral obstruction in dogs: 44 cases (2010-2013). *J Am Vet Med Assoc*. 2018 Mar 15;252(6):721-731.

Jones B, **Berent AC**, **Weisse CW**, **Hart R, Alvarez L**, **Fischetti A**, Horn BD, Canning D. Surgical and endoscopic treatment of bladder exstrophy-epispadias complex in a female dog. *J Am Vet Med Assoc*. 2018 Mar 15;252(6):732-743.

Raske M, **Weisse C**, Berent AC, McDougall R, Lamb K. Immediate, short-, and long-term changes in tracheal stent diameter, length, and positioning after placement in dogs with tracheal collapse syndrome. *J Vet Intern Med*. 2018 Feb 20. doi: 10.1111/jvim.15063. [Epub ahead of print]

Tan DK, **Weisse C**, Berent A, Lamb KE. Prospective evaluation of an indwelling esophageal balloon dilatation feeding tube for treatment of benign esophageal strictures in dogs and cats. *J Vet Intern Med*. 2018 Feb 20. doi: 10.1111/jvim.15071. [Epub ahead of print]

ABOUT THIS NEWSLETTER

This newsletter is distributed quarterly to AMC's network of referring veterinarians, alumni and others who opt-in to receive this publication. To view past issues or to join our mailing list, please visit amcny.org/rdvm-quarterly. If you are an AMC alumnus who would like to sign up to receive periodic updates, please visit amcny.org/amc-alumni-registration.

To receive our current staff directory or if you have questions, email info@amcny.org.

For access to the AMC Patient Referral Form, visit amcny.org/referralform.

Cover photo courtesy of Corey Towers

Designed by Anthony Coombs

AMC Dedicated Phone Numbers for Referring Veterinarians

AVIAN & EXOTICS
Dr. Kathy Quesenberry
Dr. Cyndi Brown
212-329-8888
Sunday – Friday
9 am – 5 pm

CARDIOLOGY
Dr. Philip Fox
Dr. Betsy Bond
Dr. Dennis Trafny
212-329-8701
Monday – Sunday
9 am – 5 pm

DENTISTRY
Dr. Dan Carmichael
Dr. Stephen Riback
Dr. Django Martel
212-329-8678
Monday – Friday
9 am – 5 pm

DERMATOLOGY
Dr. Mark Macina
212-329-8777
Tuesday – Saturday
9 am – 5 pm

INTERNAL MEDICINE A
Dr. Beth Appleman
Dr. Carly Bloom
212-329-8619
Monday – Sunday
9 am – 5 pm

INTERNAL MEDICINE B
Dr. Douglas Palma
Dr. Dennis Slade
212-329-8675
Monday – Sunday
9 am – 5 pm

INTERVENTIONAL RADIOLOGY & INTERVENTIONAL ENDOSCOPY
Dr. Chick Weisse
Dr. Allyson Berent
212-329-8700
Monday – Friday
9 am – 5 pm

NEUROLOGY
Dr. Chad West
Dr. John McCue
Dr. Abbie Lebowitz
212-329-8770
Monday – Sunday
9 am – 5 pm

ONCOLOGY
Dr. Nicole Leibman
Dr. Ann Hohenhaus
Dr. Maria Camps
212-329-8797
Monday – Saturday
9 am – 5 pm

OPHTHALMOLOGY
Dr. Alexandra van der Woerdt
212-329-8813
Monday
10 am – 6 pm
Tuesday
10 am – 5 pm
Thursday
2 pm – 9 pm
Friday
9 am – 3 pm

RADIATION ONCOLOGY
Dr. Rachel St-Vincent
212-329-8821
Monday – Friday
9 am – 5 pm

REHABILITATION & INTEGRATIVE MEDICINE
Dr. Leilani Alvarez
Dr. Barry Cherno
212-329-8860
Monday – Saturday
9 am – 5 pm

SURGERY SERVICE 2
Dr. Dan Spector
212-329-8863
Wednesday – Saturday
9 am – 5 pm

SURGERY SERVICE 3
Dr. Pamela Schwartz
212-329-8867
Monday – Friday
9 am – 5 pm

SURGERY SERVICE 4
Dr. Rob Hart
212-329-8674
Monday – Friday
9 am – 5 pm

A.M.C. PORTAL
amcny.org/referral-portal-login

PRIORITY EMERGENCY/ CRITICAL CARE HOTLINE
212-329-8616 or
646-556-6411 (fax)

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The Standard of Veterinary Excellence

FIG. 1

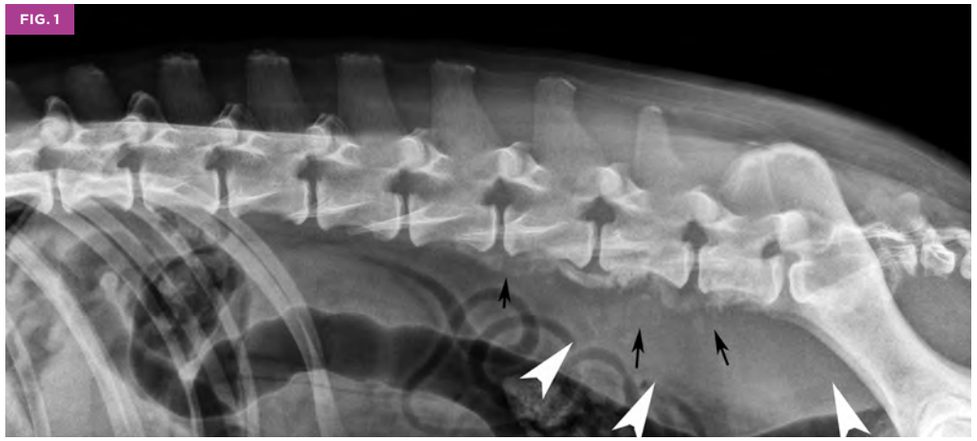
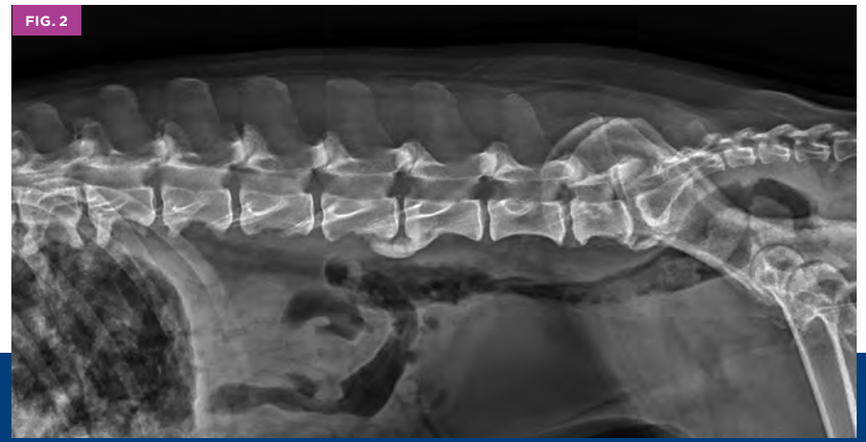


FIG. 2



What's your diagnosis?

Figure 1. Lateral radiograph of the lumbar vertebral column, labeled with abnormalities. Irregular new bone formation is ventral to multiple caudal lumbar vertebral bodies, from the mid-body of L4 to L7 (black arrows). There may be additional areas of irregular mineral ventral to the sacrum. A large soft tissue mass is ventral to L6 and L7, extending caudally into the pelvic inlet (white arrowheads). A few small mineral foci, similar to the new bone formation of the vertebral bodies, are in the soft tissue mass. The soft tissue mass displaces a gas filled colon ventrally.

Figure 2. An example of benign spondylosis deformans in an otherwise normal dog, most notable at L4-5 and LS. Notice the smooth new bone formation bridging the ventral disc spaces. The smooth new bone is not fragmented and there is no evidence of a concurrent soft tissue mass. The gas-filled descending colon is in a normal position, not displaced ventrally.

Outcome: The irregular new bone formation and associated soft tissue (representing sublumbar lymphadenopathy) in the dog of this case was aspirated with ultrasound guidance. The cytology was consistent with metastatic carcinoma. On evaluation of the rest of the abdomen, an irregular, partially mineralized prostatic mass was seen, extending into the urinary bladder trigone. A primary transitional cell carcinoma was diagnosed on fine needle aspirate of the prostatic mass.

The sublumbar lymph nodes and ventral lumbar vertebral bodies are common sites of metastasis for urinary neoplasia such as prostatic transitional cell carcinoma. The new bone formation of the lumbar spine should be differentiated from the common and benign process of spondylosis deformans.

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