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Davis-Thompson Foundation

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For the advancemet of veterinary and comparative pathology

THE DAVIS-THOMPSON FOUNDATION NEWSLETTER

July 2022

VOL. 52

INSIDE THIS ISSUE

Monthly cover photograph winner: Sawang Kesdangsakonwut

Institution: Department of Pathology, Faculty of Veterinary Science, Chulalongkorn University

Signalment: A 13-year-old, intact male dalmation dog (*Canis lupus familiaris*).

Diagnosis: Urinary bladder: cystitis, catarrhal, diffuse, with mucosal congestion and myriad uroliths

Disease: Cystic calculi

MESSAGE FROM THE CEO

Dear colleagues

Welcome to the July issue of the Davis-Thompson Foundation Newsletter, prepared by our outstanding Managing Editors Jeann Leal and Javier Asin.

Slowly, the world is coming back to face to face activities and so is your Foundation. Check this issue, which comes, as usual, full of information on our training activities around the world, including an increasing number of in person seminars and workshops.

Amongst the myriad training opportunities coming up, if you are considering attending the annual meeting of AAVLD and/or ACVP, when you register for these events, keep in mind our great pre-congress seminars, including both of them, a full day of continuous education for trainees and full-fledged pathologists.

Looking forward to seeing you in one or more of our training activities soon.

Enjoy

Francisco (Paco) Uzal
Chief Executive Officer
Davis-Thompson Foundation

MESSAGE FROM THE CFO

In 2023, at least 3 of the Foundation's big 4 courses (General Path Review Course, Descriptive Veterinary Pathology Course, Current Literature and Image Interpretation Course, and CLASS/POLA) will be returning to an in-person only format. We are currently discussing the in-person vs. virtual options with the faculty of the Gen Path Review Course, which will begin its annual advertising this fall.

Since 2020, we have provided Zoom versions of these important training courses in the face of the COVID-19 pandemic, but these courses are, and were always meant to be, an in-person, immersive learning experience where young pathologist can focus all of their attention on learning the material, interact directly with instructors but also have the opportunity to network with future colleagues in their field.

As other major meetings such as the AAVLD, ACVP, AAZV, and many others return to in-person starting this fall(2022), the Davis-Thompson Foundation will return to our regular slate of in-person meetings in 2023, in countries in Latin America, Europe, Asia, and Australia. We know that our Divisions in all of these countries are as eager to see their colleagues in person again as we are, and that our Faculty of Discussants is eager to return to the road as well - there is nothing like teaching students in person.

The Foundation Executive Board and our Webinar committee will be having discussions this fallas to what the online offerings will be in 2023 and beyond - stay tuned for details!

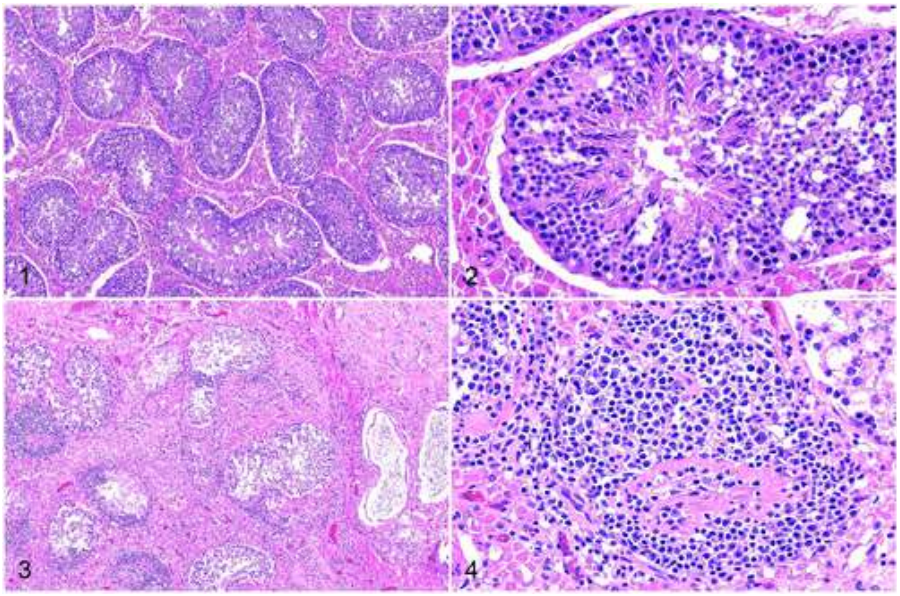
Bruce Williams, DVM, Dipl. ACVP
Chief Financial Officer
Davis-Thompson Foundation

JVDI IN FOCUS

This month´s focus is an article in JVDI's May issue, "Persistence and shedding of senecavirus A in naturally infected boars" by Matthew J. Sturos, Deborah Murray, Levi Johnson, Guilherme Preis, Cesar A. Corzo, Stephanie Rossow, Fabio A. Vannucci.

J Vet Diagn Invest 2022;34(3). https://journals.sagepub.com/doi/10.1177/10406387221084054

Abstract. Senecavirus A (SVA) infection in pigs causes vesicular disease and results in a short viremia and transient shedding of the virus, mainly in oral fluids and feces. Here we describe the consistent prolonged shedding of SVA in the semen of 2 boars, and persistence of SVA within the tonsils and testes of 3 adult boars. Two SVA-infected boars that were identified on a Minnesota sow farm in 2017 shed SVA RNA in semen for >3 mo after an outbreak of vesicular disease had occurred on the farm. SVA was isolated from 1 semen sample collected 9 d after clinical disease began on the farm. The third SVA-infected boar was identified on an Indiana sow farm in 2020. All boars had SVA RNA detected in the testes and tonsils by RT-rtPCR, with lower Ct values obtained for the testes than from the tonsils. All boars had multifocal lymphocytic orchitis with segmental degeneration and atrophy of the germinal epithelium within the seminiferous tubules. One boar also had areas of seminiferous tubule collapse and interstitial fibrosis within the testes. In all boars, in situ hybridization demonstrated the presence of SVA mRNA within cells located basally in the seminiferous tubules of the testes, and within the basal surface epithelial cells, crypt epithelial cells, and subepithelial and parafollicular lymphocytes and histiocytes of the tonsil.



Figures 1–4. Senecavirus A infection of testes in a domestic pig. Figure 1. Unaffected normal testicular tissue in boar 4. H&E. Figure 2. Higher magnification from Figure 1. Unaffected normal seminiferous tubule with orderly maturation of the germinal epithelium. H&E. Figure 3. Lobules of seminiferous tubules with multifocal lymphocytic orchitis, segmental degeneration and atrophy of the germinal epithelium, with tubular dilation or collapse, and interstitial fibrosis in boar 4. H&E. Figure 4. Higher magnification from Fig. 3. Centrally, infiltrates of lymphocytes surround a collapsed seminiferous tubule devoid of Sertoli cells and germinal epithelium, with increased collagen in the adjacent interstitium.

SEMINAR REVIEWS

Davis-Thompson Foundation

Necropsy Course

The inaugural Necropsy course was held on June 11 and 12, 2022 at Murray State University, Breathitt Veterinary Center in Hopkinsville, KY. This was a new endeavor of the Foundation created primarily to assist foreign graduate veterinarians preparing for the AVMA Educational Commission for Foreign Veterinary Graduates Clinical Proficiency Exam (CPE). However, the course was also attended by veterinarians looking to improve their necropsy skills. The course was hosted by Dr. Rafaela De Negri and Dr. Nathan Helgert and provided the opportunity for ten veterinarians to spend 2 days practicing necropsy techniques. In addition, the course provided a necropsy demonstration to a virtual audience via Zoom.

Participants were from all over the world, including the USA, Canada, Brazil, India, Iraq, Japan, Korea, Mexico, Poland, Peru and Spain. The focus of the course was to develop a consistent, easily reproducible necropsy protocol to ensure that all procedures and samples in the CPE handbook are completed. All participants were provided introductory instruction followed by a live necropsy demonstration.

SEMINAR REVIEWS

The in-person participants were able to practice necropsy following the guidelines laid out in the CPE handbook and take a mock exam in preparation. By the end of the weekend, all veterinarians, including those with very limited necropsy experience were comfortable performing a necropsy following the CPE guidelines. We anticipate this outreach opportunity will plant little seeds to also improve the quality of samples veterinarians provide to diagnostic laboratories all over the USA. When these veterinarians complete the CPE, they will become licensed veterinarians, and the majority are interested in pursuing careers in general practice.

In-person participants were treated to the gracious Southern hospitality of a small KY town and built great camaraderie to relieve their arduous journey into board equivalency. Given the interest and positive feedback received, we hope to provide this course on a regular basis.

DIAGNOSTIC EXERCISE

Case # **191**; Month: **June**; Year: 2022

Contributors: Harlan Hallamys C de Lima Nascimento*, DVM, MS, Doctor in Veterinary Pathology, Mariana Martins Flores*, DVM, MS, Doctor in Veterinary Pathology. *Laboratory of Veterinary Pathology, Universidade Federal de Santa Maria (UFSM), Santa Maria, Rio Grande do Sul, Brazil. mariana.flores@ufsm.br

Clinical History: This 3-year-old female poodle was one month pregnant. It had a single episode of vomiting. The next day, the owner noticed the dog was apathic and fell down, not being able to get up. It died on the way to the hospital. No information regarding vaccination history and deworming were provided.

Necropsy Findings: A small amount of translucid blood-stained fluid was within the abdominal cavity. Several deep and superficial lymph nodes were edematous and hemorrhagic on cut surface. Multiple red fibrin strands were adhered to the intestinal serosa and liver capsule (Figure 1). The intestines had a discretely granular serous surface, and the mucosa was hemorrhagic (Figure 2). The liver was slightly enlarged and congested, had a slightly granular capsular surface and was friable on cut surface (Figure 3). Other organs were unremarkable.

Gross and/or microscopic image(s):

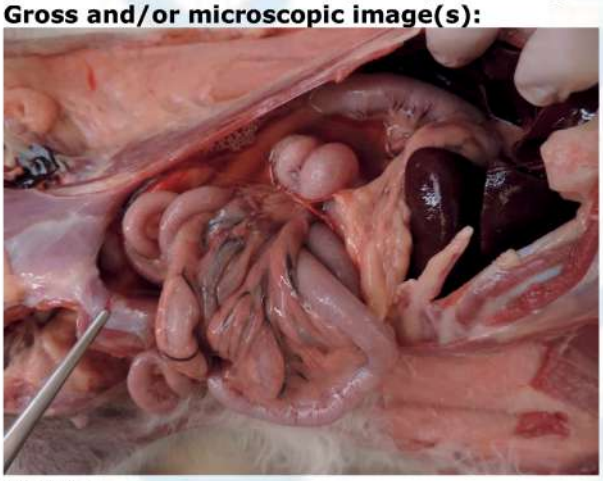


Figure 1

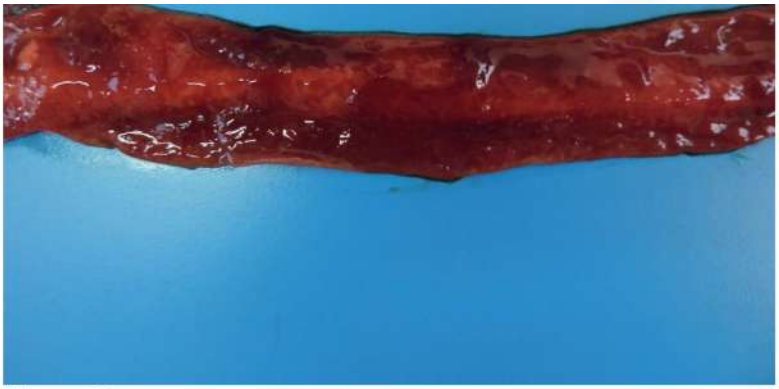


Figure 2

DIAGNOSTIC EXERCISE

Figure 3

Follow-up questions:

1. *Name hepatic diseases that could be included as possible diagnoses in this case.*
2. *What histologic change would you expected in the liver in these conditions?*
3. *What histologic hepatic changes would help differentiate these conditions?*
4. *What abnormalities would you expect in serum biochemistry tests?*

The Diagnostic Exercises are an initiative of the Latin Comparative Pathology Group (LCPG), the Latin American subdivision of The Davis-Thompson Foundation. These exercises are contributed by members and non-members from any country of residence. Consider submitting an exercise! A final document containing this material with answers and a brief discussion will be posted on the CL Davis website (https://davisthompsonfoundation.org/diagnostic-exercise/

Associate Editor for this Diagnostic Exercise: Mariana Flores
Editor-in-chief: Claudio Barros

Click here for answers

REWIND SEMINAR

Click here to register

ISACP WEBINARS

International Society for Animal Clinical Pathology

ISACP WEBINARS

IRON METABOLISM

July 19, 2022 "Physiology of Iron Metabolism"
July 21, 2022 "Disorders of Iron Metabolism"

Webinars start at 1:00pm Eastern time (US and Canada) | 1.5 hours each

Presented by:
John W. Harvey, DVM, PhD, DACVP
College of Veterinary Medicine
University of Florida

The webinars are FREE, but preregistration is required

Physiology: https://us06web.zoom.us/webinar/register/WN_c81mpaW6TTavLQFqlITpcA
Disorders: https://us06web.zoom.us/webinar/register/WN_JoEc33A0Q8qRwGJ_crpeKg

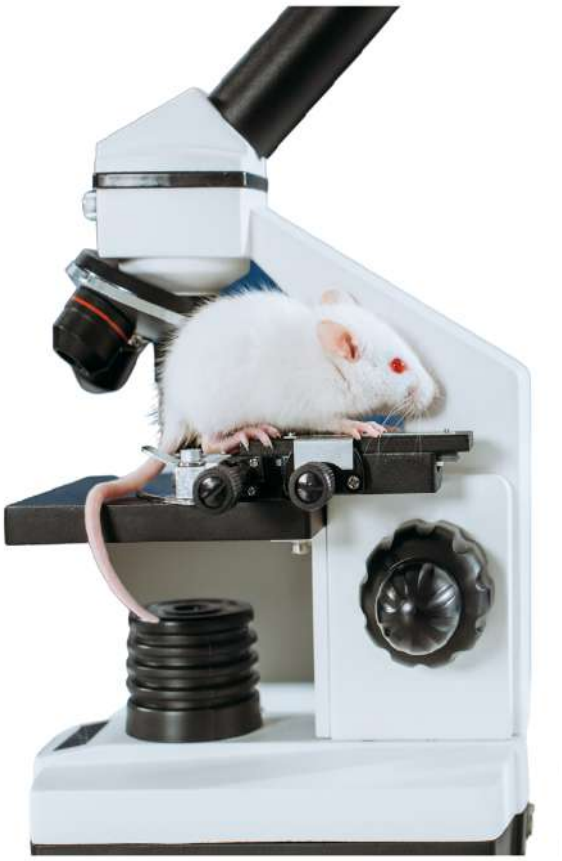
LITERATURE & INTERPRETATION COURSE

Click here to register

CLASS/POLA 2022

Davis-Thompson Foundation

Penn
University of Pennsylvania



REGISTER HERE!

2022 CURRENT LAB ANIMAL SCIENCE SEMINAR (CLASS) & PATHOLOGY OF LAB ANIMALS (POLA)

CLASS	POLA
AUGUST 6-7	AUGUST 8-12

VIRTUAL

Click here to register

SEMINAR SERIES IN PORTUGUESE

Click here to register for individual seminars

AUSTRALIAN SEMINAR SERIES

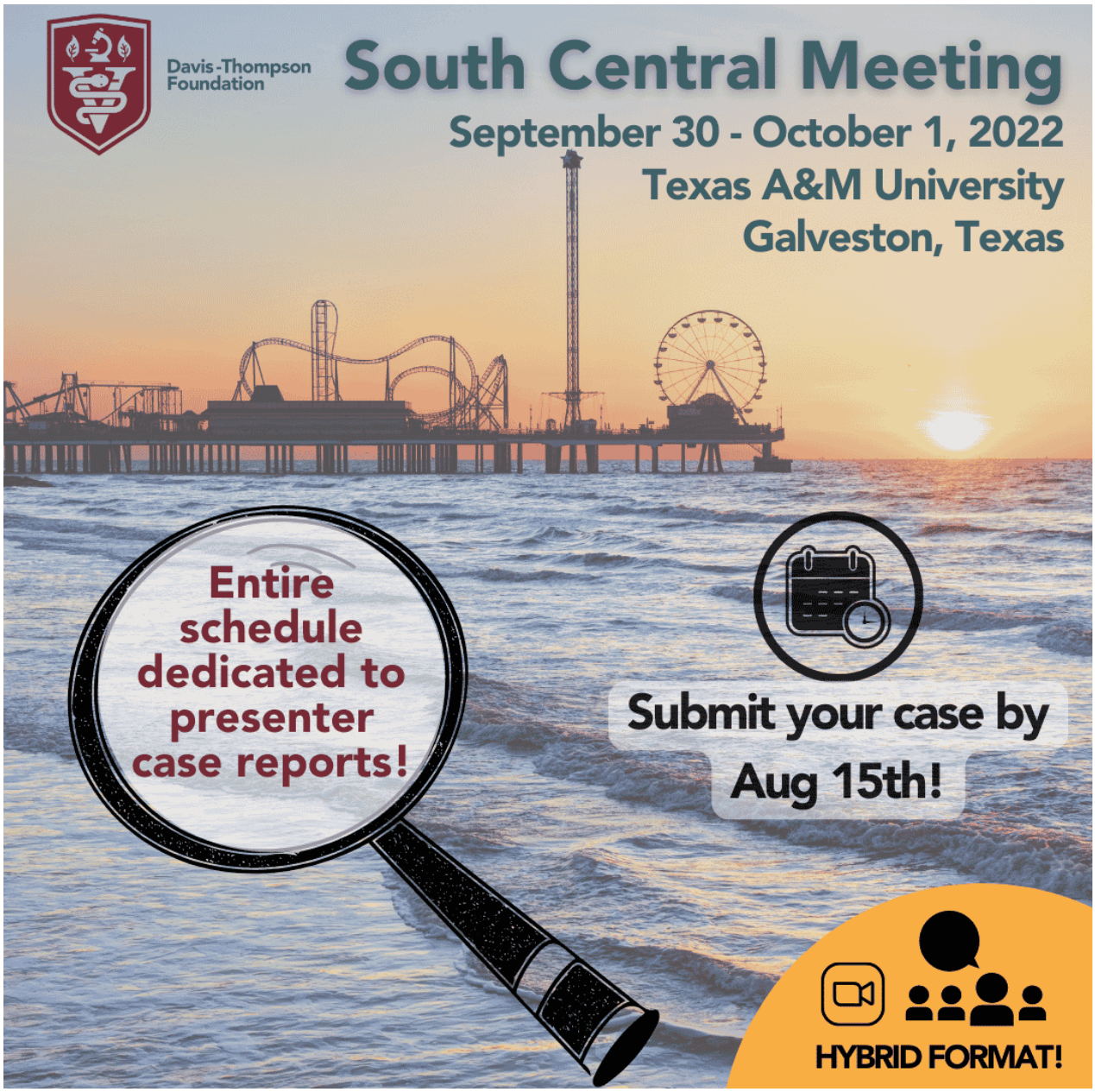
Click here to register for individual seminars

ARGENTINIAN SEMINAR

NHP PATHOLOGY WORKSHOP

Click here to register

SOUTH CENTRAL MEETING



Click here to register

AAVLD DISEASES OF THE NERVOUS SYSTEM

Registration information coming soon on AAVLD website

LATIN AMERICA ROAD SHOW

ACVP PRE-MEETING WORKSHOP

Registration information coming soon on ACVP website

DT FOUNDATION SEMINARS IN LATIN AMERICA

BSTP CORNER

BRITISH SOCIETY OF TOXICOLOGICAL PATHOLOGY

Notice of Future Meetings - March 2022

Virtual CES 6: Male Reproductive System
Tuesday 5th – Thursday 14th July 2022

CES 6 will be held over two weeks – on the afternoons of Tuesday 5th, Wednesday 6th, Thursday 7th, Tuesday 12th, Wednesday 13th and Thursday 14th July 2022, from 13.00 – 16.30/17.00 (GMT+1, London/UCT+1) each day.

Continuing Professional Development:
Approved by the Royal Society of Biology for the purposes of CPD, this event may be counted as approximately 53 credits. Approximately 17.5 hours of educational activity will be recorded on Attendance Certificates.

This Continuing Education Symposium will cover an overview of the male reproductive system in preclinical animal species.

We are pleased to announce that Dianne Creasy will be the keynote speaker.

<< REGISTRATION IS NOW OPEN >>

If you would like further information, have any queries, or would like to reserve a place, please contact the BSTP Secretariat – bstpsecretariat@gmail.com

or visit http://www.bstp.org.uk/events/ces-6-male-reproductive-system/

37th Annual Scientific Meeting of the BSTP & AGM – Digital Pathology and Mouse Pathology Workshop
Thursday 10th & Friday 11th November 2022
Harrogate, North Yorkshire, UK

Continuing Professional Development: *Royal Society of Biology CPD credits will be applied for.*

We are delighted to invite you to attend ..... **IN PERSON** the Digital Pathology and Mouse Pathology Workshop (in collaboration with Pathology Society of Great Britain and Ireland) which will be held on 10th and 11th November 2022 in Harrogate, UK. This conference will give you the opportunity to join a talented digital pathology community in person following a long absence of face-to-face gatherings. You will have direct access to international key opinion leaders, cutting-edge (or pre-event) workshops & discussions, Pharma/Biotech case studies, keynote lectures, and an innovating poster session. Digital pathology areas include nonclinical solutions for drug development, clinical learning-based diagnostic tools, digital image analysis solutions, quality management with regulatory compliance, digital peer review, digital primary slide reading, deep learning-based artificial intelligence concepts and much more.

The Mouse Pathology Workshop will aim to have a mix of talks to enable those in the early stages of their career to learn about pathology basics.

You will be able to create new collaborations and build on existing partnerships across industry & academia.

For up-to-date information, keep checking:
http://www.bstp.org.uk/events/37th-annual-scientific-meeting-of-the-bstp/

BSTP CORNER

Future BSTP events are due to take place as follows:

5th – 14th July 2022	**Virtual CES 6 - Male Reproductive System**
10th & 11th November 2022	**37th Annual Scientific Meeting & AGM (IN PERSON)** **Digital Pathology and Mouse Pathology Workshop**
14th – 23rd March 2023	**Virtual CES 7 - Infectious diseases of laboratory animals**
4th – 13th July 2023	**Virtual CES 8 - Nervous System**
November 2023	38th Annual Scientific Meeting & AGM
March 2024	CES 9 - Urinary System
July 2024	CES 10 - Digestive System
November 2024	39th Annual Scientific Meeting & AGM
March 2025	CES 11 - Cardiovascular System
July 2025	CES 12 - Endocrine System
November 2025	40th Annual Scientific Meeting & AGM
March 2026	CES 13 - Urinary System
July 2026	CES 14 - Lymphoid & Haematopoietic Systems
November 2026	41st Annual Scientific Meeting & AGM
March 2027	CES 15 - Musculoskeletal System & Skin

The order of the CES will depend on the availability of high-quality speakers who are world experts in their particular field to present at the relevant meeting. Details of future meetings are correct at the time this booklet is generated, the BSTP will not be held responsible for any changes to dates, topics and venues of these meetings.

Webinars

BSTP webinars - in collaboration with the Society of Toxicological Pathology (STP)
Organisation still in progress

BSTP webinars - in collaboration with the ESTP/SFPT/BSTP and ECVP/ESVP
6th Joint Webinar of the ESTP/SFTP/BSTP and ECVP/ESVP, Monday April 25th, 2022
"Hot topics in Veterinary and Toxicologic Pathology".

For information on any events organised by the BSTP, please contact the BSTP Secretariat - bstpsecretariat@gmail.com

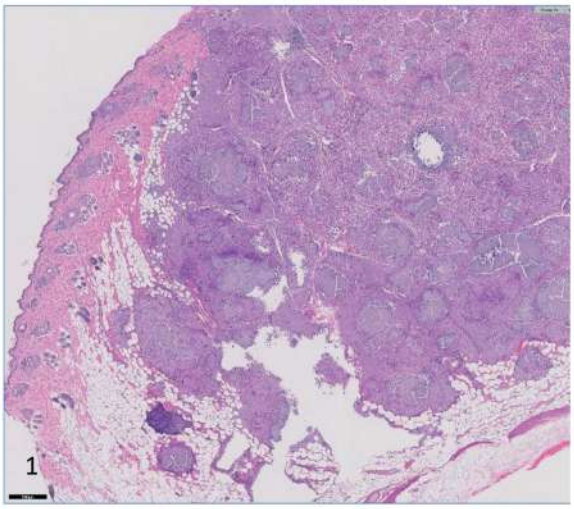
or visit the website – http://www.bstp.org.uk/bstp-events/

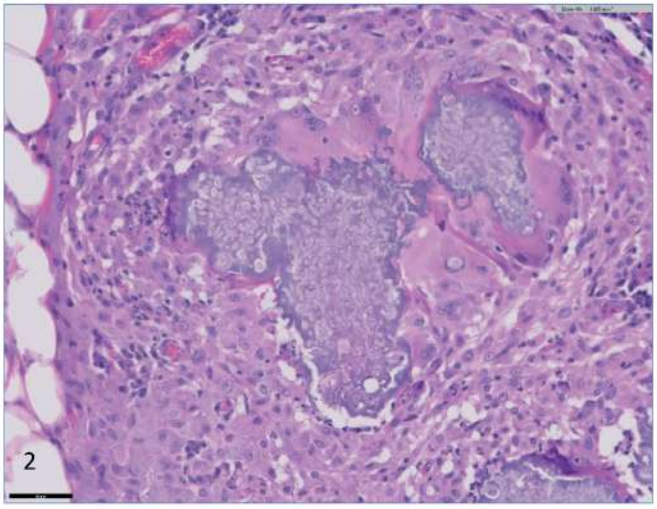
or http://www.bstp.org.uk/bstp-webinars/

IDEXX CASECONNEXX CORNER

Signalment: 1-year-old, female spayed, Persian cat

Source/ History: Suspect granuloma, three lesions right flank, left flank and abdomen, aspirates showed similar cell population





Figures 1. (2X magnification, H&E stain) and 2. (40X magnification, H&E stain) The mid to deep dermis and subcutis is expanded by nodular aggregates of fungal hyphae surrounded by predominately histiocytes, multinucleated giant cells, and neutrophils. The tangles of hyphae are approximately 3-5 micrometers in diameter, with variably parallel walls, frequent bulbous dilations, and occasional acute-angle branching and septations.

MICROSCOPIC DESCRIPTION:
Expanding and effacing the mid to deep dermis and subcutis is a nodular to coalescing inflammatory process. The nodules are composed of mats of hyphae embedded in eosinophilic to amphophilic material surrounded by many histiocytes with amphophilic to foamy cytoplasm, neutrophils, plasma cells, multinucleated giant cells, and fewer eosinophils. The hyphae are tangled and irregularly arranged, approximately 3-5 micrometers in diameter, with variably parallel walls, frequent bulbous dilations, and occasional acute-angle branching and septations. There is occasional mineralization in these nodular aggregates. In the overlying epidermis, there is mild to moderate regular epidermal hyperplasia. In the dermis, are mild numbers of perivascular mast cells, lymphocytes and plasma cells. Multifocally within hair follicles there are numerous fungal arthrospores and hyphae.

MICROSCOPIC INTERPRETATION:
Marked, locally extensive, nodular to coalescing, pyogranulomatous dermatitis and panniculitis with myriad fungal hyphae, and moderate numbers of intrafollicular fungal arthrospores and hyphae (consistent with a dermatophytic pseudomycetoma)
Margin assessment: Appears completely excised

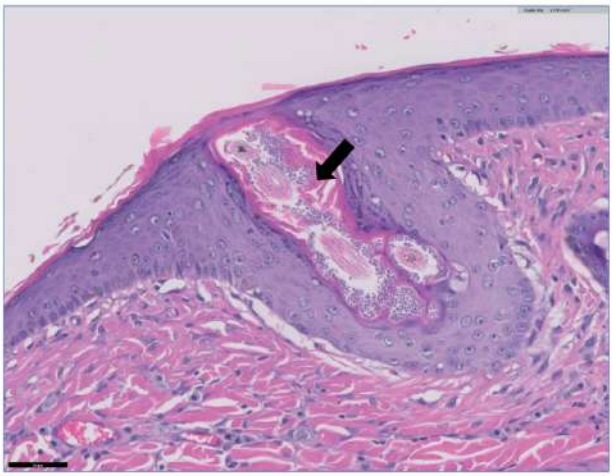


Figure 3. (40X magnification, H&E stain) Within the overlying epidermis there is mild to moderate regular epidermal hyperplasia. Within follicles, there are many intrafollicular hyphae and arthrospores (black arrow).

Comments:
Histologic examination revealed a locally extensive inflammatory process in the dermis and subcutis associated with many fungal hyphae. Within the overlying haired skin, there are intrafollicular arthrospores and hyphae. These histologic findings are consistent with a dermatophytic pseudomycetoma.

Dermatophytic pseudomycetomas are deep dermal to subcutaneous, uncommon, dermatophyte infections with nodules that frequently ulcerate and can form draining tracts. Dermatophytic pseudomycetoma is most commonly caused by *Microsporum canis* and mainly reported in Persian cats and to lesser extent Himalayan cats. These lesions occur more commonly on the head, neck, dorsum, tail, flanks or limbs. The pathogenesis of dermatophytic pseudomcyetoma is unclear, and lesions have been reported to occur with or without a history of skin trauma. Feline dermatophytosis is a zoonotic disease.

References: Chang SC et al. Dermatophytic pseudomycetomas in four cats. Vet Dermatol. 2011 Apr;22(2):181-7; Skin Diseases of the Dog and Cat, 2nd ed. pp. 410-413, 2005; Mauldin, EA and Peters-Kennedy, J. Integumentary System. In Jubb, Kennedy, and Palmer's Pathology of Domestic Animals. Edited by: M. Grant Maxie Vol. 1, 6th Ed. 2016, Elsevier. pp. 649-653.

Case by
Joseph Malatos, DVM, DACVP

IDEXX

CaseConnexx
Visit CaseConnexx.com to Register

MISCELLANEOUS ANNOUNCEMENTS

Membership Fees:
$50 - Professionals in US, Canada, and Europe
$30 - Professionals in Latin America
$25 - Students in US, Canada, and Europe
$15 - Students in Latine America

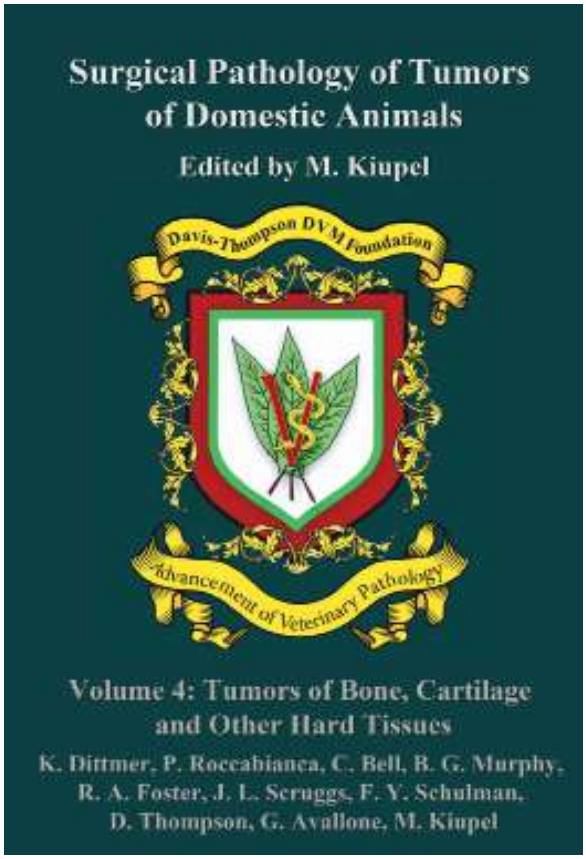
Use this link to join: https://davisthompsonfoundation.regfox.com/lcpg-membership

LCPG is the proud Latin American Division of the Davis Thompson Foundation

MISCELLANEOUS ANNOUNCEMENTS

www.vcgp.org is now live!

MISCELLANEOUS ANNOUNCEMENTS



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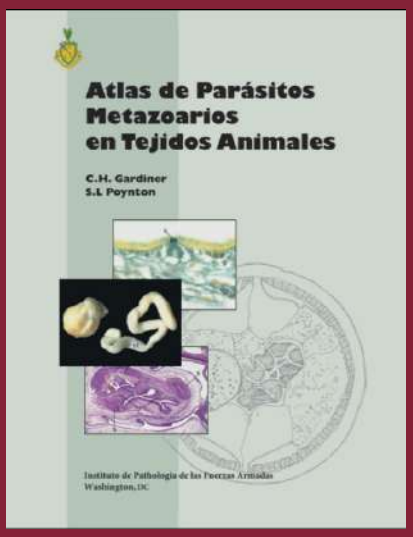
RETIRING?

Have slides left over from your recent slide seminar? Just looking to free up some storage space? The Foundation is looking for additional glass slides, kodachromes and other similar materials for its Correspondence Division and Study Centers. All materials should be well identified with as much accompany history and discussion as possible, as these materials are expressly used for teaching. Moreover, as the Foundation is a publicly donative charity, all donated materials are tax-deductible. For more information, please contact Dr. Bruce Williams at **bruce.h.williams.dvm@gmail.com.**

Davis-Thompson Foundation Pathology Externship

Since 1980, the Davis-Thompson Foundation lab sites have hosted more than 125 veterinary students at 8 participating diagnostic laboratories. These students usually have a strong interest in pathology itself or zoo or poultry medicine that require a strong pathology background. The Foundation is always interested in having veterinary students apply for an externship and we would like to add more externship sites that do not usually have veterinary students, to help increase their interest and knowledge of pathology with some off-campus experience. For more information, contact Dr. Jim Britt, **jobritt@sbcglobal.net;** 501-912-1449.



Atlas De Parasitos Metazoarios En Tejidos Animales - Click Here to Get a Digital Download!