

Diagnostic Insights

Kansas State Veterinary Diagnostic Laboratory
www.ksvdl.org



Accredited by the American Association of Veterinary Laboratory Diagnosticians

April 2013

KSVDL's 2nd Annual Conference on Animal Diagnostics Was a Huge Success!

The 2013 conference was attended by 109 veterinarians from three states. This was a bovine specific program which included:

- Clostridium infections
- Rotavirus field strains
- Abortion investigation guidelines

In addition, 65 veterinarians completed the Trichomonas certification program! At the conclusion of the conference, interested participants were provided Trich IT™ sampling pipettes and Biomed's TF Tube™ samples, free of charge.

The Kansas Department of Agriculture, Division of Animal Health, was also present at the convention, where they signed up many practitioners for the on-line health certificate submission program.

Thanks to all who helped make this a successful conference!

Videos of each presentation can be found at www.ksvdl.org



Inside this issue:

Canine Eosinophilic Folliculitis	2
UPS Flat Rate Shipping	3
Animals Exposed to Rabies Virus	4
KSVDL Outreach Presentations	5
Continuing Education	6
Holiday Schedule	6

**To set up an account go to:
www.ksvdl.org**

Canine Eosinophilic Folliculitis and Furunculosis

Dr. Bill Fortney and Dr. Jamie Henningson



Figure 1

Canine eosinophilic folliculitis (+/- furunculosis) lesions are acute angry looking papules, nodules, and ulcerations with some hemorrhage. (Figure 1) Pruritis may be very intense or absent and the lesions can be rather painful. The typical lesion patterns are confined to the dog's face (nose and muzzle), although generalized conditions of the trunk and the pinnas have also been reported.

Diagnosis:

The history, clinical presentation, cytology examination, and response to therapy allow for a presumptive diagnosis of eosinophilic folliculitis +/- furunculosis (hair follicle rupture). Many patients also have an eosinophilia. In one study, 50% of the cases also had some gastrointestinal symptoms.

A biopsy can confirm the disease, determine the presence or absence of furunculosis, and rule-out secondary pyoderma. On histopathology the dermis is characterized by an intense inflammatory infiltrate of predominately eosinophils, which generally center on hair follicles therefore causing furunculosis.

Figure 2. Low magnification view of the severe dermatitis with eosinophils and the infiltration of hair follicles with eosinophils.

Figure 3. Higher magnification. Note the presence of numerous eosinophils in the hair follicle and dermis.

Management:

Canine eosinophilic folliculitis and furunculosis cases are generally self-limiting but can be very responsive to glucocorticoids therapy. Oral glucocorticoids are very effective, and

the earlier therapy is initiated, the faster the healing. If steroid therapy is not used or treatment is delayed or significant hair follicles have ruptured, complete resolution may take several months. If a secondary infection is observed on cytology or histopathology, the use of systemic antibiotics is appropriate.

Cause:

The factor(s) initiating the eosinophilic inflammatory reaction are unknown. A popular theory suggests an insect/arthropod bite or sting induced hypersensitivity reaction is the initiating factor. This theory is controversial as the disease is also seen in the winter and relapses are very rare.

Reference: Muller & Kirk, Small Animal Dermatology, 5th Ed.; W.B. Saunders Co. pg. 544.

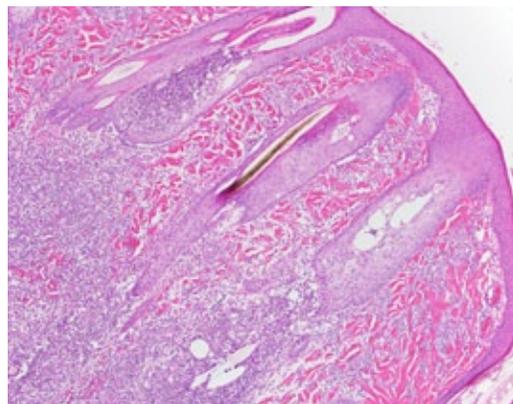


Figure 2

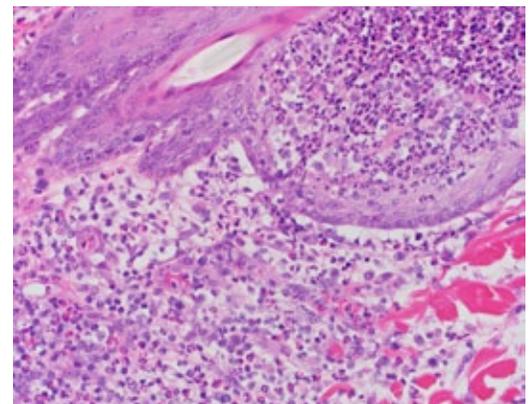


Figure 3



UPS Flat Rate Shipping Discount Expansion!!

The KSVDL announced last month a discounted flat rate shipping charge of \$6 for samples weighing less than 15 lbs being shipped from KSVDL clients living in Kansas and portions of Nebraska and Missouri to the diagnostic laboratory. We are now happy to announce the same flat rate for any client within the U.S. The only difference with the expanded area offering is that packages shipped from areas other than the yellow areas designated on the map will not be guaranteed overnight delivery. The expected transit time from these areas are listed at the bottom of the map. For many diagnostic specimens, these expected transit times will be acceptable if packaged appropriately.

Summary of discount shipping program:

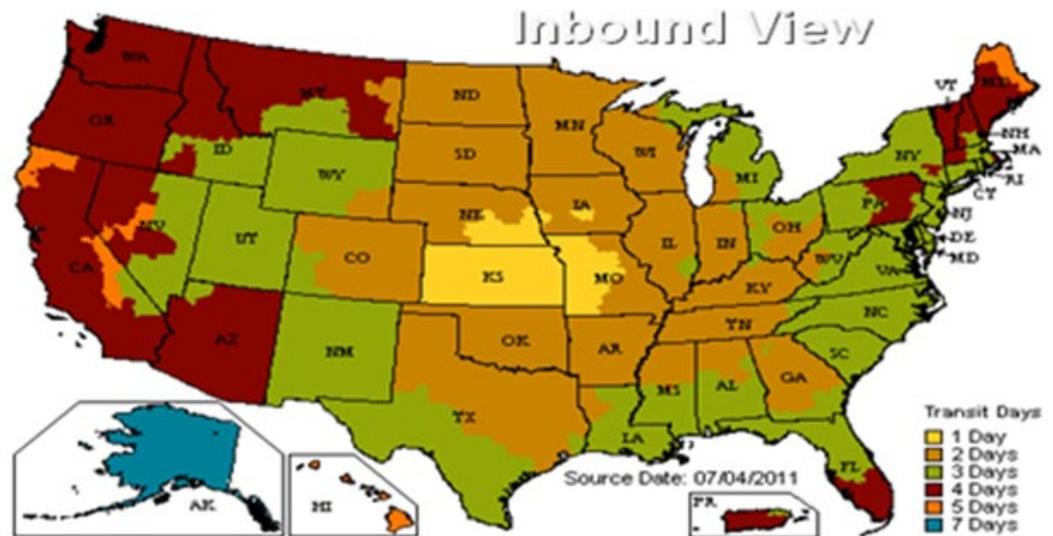
- Any package < 15 lbs
- \$6 per package
- Free UPS pickup
- Guaranteed overnight delivery from designated area (yellow) on map.
- Flat rate is available for all other areas of the U.S.—no overnight guarantee
- Ship normal UPS GROUND

For more information concerning this shipping discount program, please call the KSVDL at 866-512-5650 and ask for Leah or Hollie.

U.S. Ground Map Results

Business days in transit to: MANHATTAN, KS 66506

→ [Printer-friendly](#)



Tritrichomonas foetus Biomed TF Transit Tube™

The KSVDL has completed a study to assess the validity of using Biomed's TF Transit Tube™ for *Tritrichomonas* PCR analysis. The conclusion of our molecular diagnostic scientists is this media form is an acceptable alternative to the InPouch™ TF pouch. (Three other university veterinary diagnostic laboratories have also concluded the Transit Tube is a viable alternative.) The tubes must be handled in the same manner as a pouch:

- 1) collected and shipped to KSVDL for arrival within 72 hours of collection, and
- 2) samples kept at 59° to 99° F from collection to arrival at the KSVDL.



Animals exposed to rabies virus

Dr. Mike Moore and Rolan Davis

The Kansas State Rabies Laboratory diagnosed 56 rabid animals of the 1,251 animals tested (4.5%) in 2012 from Kansas.

Submissions resulting in a positive diagnosis by species:

Species	# positive	# tested	% positive
Skunk	34	60	56.7%
Bat	6	228	2.6%
Horse	5	27	18.5%
Bovine	4	61	6.6%
Cat	4	384	1.0%
Raccoon	2	69	2.9%
Coyote	1	7	14.3%

The number of total specimens submitted in 2012 is less than the average tested for the previous decade, approximately 1,502 animals per year. This number is consistent with the last 5 years but less than the high of 1,943 in 2000. In 2012, positive skunks were reported in 21 counties, and positive bats were reported in 4 counties.

The laboratory continued to test a wide variety of animal species in 2012. There were 21 different species of animals tested. Domestic animals represented the majority of submissions (68%) compared to wild animals (32%). Human exposure to a possible rabid animal prompted the submission of 53% of all animals tested.

Total submissions in 2012:

Species	# Tested	% of submissions
Cat	384	30.7%
Dog	368	29.4%
Bat	228	18.2%
Raccoon	69	5.5%
Bovine	61	4.9%
Skunk	60	4.8%
Horse	27	2.2%
Squirrel	14	1.1%
Opossum	12	1.0%
Coyote	7	0.6%
Goat	6	0.5%
Bobcat	2	0.2%
Rat	2	0.2%
Ground hog	2	0.2%
Badger	2	0.2%
Mole	2	0.2%
Mouse	1	0.1%
Fox	1	0.1%
Chipmunk	1	0.1%
Muskrat	1	0.1%
Armadillo	1	0.1%



KSVDL Outreach Activities

- Bovine neonatal scours, BVD, and Anaplasmosis at the Montgomery County 27th Annual Animal Health Day in Independence, Kan.
- The basics of *Trichostrongylus axei* in beef herds was presented at the Animal Health Center's client appreciation program hosted by Drs. Benz and Rankin in Washington, Kansas.
- Producer education meetings on the topics of Trichomoniasis basics and the proposed Kansas Trich regulations were conducted in Oakley, Jewell, Sharon Springs, St. Francis, Belleville, and Sylvan Grove.
- A summary of various bovine health topics was presented at the Prairie View FFA's Cattlemen's Appreciation breakfast in La Cygne, Kansas.
- Dr. Lehr attended the MOPAC (Midwest Alpaca Owners and Breeders Association) Conference in Kansas City Missouri.

New Tests Available at KSVDL

Mast Cell Tumor Prognosis Panel

This panel involves c-kit immunohistochemistry, cell proliferation analysis, and PCR for mutations in the c-kit gene, which can aid in the reliability of mast cell tumor prognosis.

The panel can also aid clinicians in determining if tyrosine kinase inhibitors could be beneficial in the treatment of a mast cell tumor in a patient by identifying the presence of mutations in the c-kit gene.

Bovine Enteric Disease Panel

This test is specific for Rota, Corona, K-99 E. coli, and Crypto

Sample: 2 grams of feces

KSVDL Specializations

DIRECTOR: DR. GARY ANDERSON
785-532-4454

BACTERIOLOGY: DR. BRIAN LUBBERS
785-532-4012

COMPANION ANIMAL OUTREACH: DR. BILL FORTNEY
785-532-4605

CLINICAL PATHOLOGY: DR. LISA POHLMAN
785-532-4882

COMPARATIVE HEMATOLOGY: DR. GORDON ANDREWS
785-532-4459

FIELD INVESTIGATIONS: DR. GREGG HANZLICEK
785-532-4853

HISTOPATHOLOGY: DR. JAMIE HENNINGSON
785-532-4461

IMMUNOLOGY: DR. MELINDA WILKERSON
785-532-4818

MOLECULAR DIAGNOSTICS: DR. RICHARD OBERST
785-532-4411

PARASITOLOGY: DR. PATRICIA PAYNE
785-532-4604

RABIES: DR. CATHLEEN HANLON
785-532-4200

RECEIVING & NECROPSY: DR. KELLI ALMES
785-532-3995

SEROLOGY: DR. RICHARD HESSE
785-532-4457

TOXICOLOGY: DR. DEON van der MERWE
785-532-4333

VIROLOGY: DR. RICHARD HESSE
785-532-4457



Developing, Delivering Accurate, Innovative Diagnostic Services

The mission of the Kansas State Veterinary Diagnostic Laboratory (KSVDL) is to develop and deliver accurate, innovative, and timely diagnostic and consultative services to the veterinary and animal health community while providing support for teaching, training and research programs.

1800 Denison Avenue
Manhattan, KS 66506

Phone: 785.532.5650
Toll Free: 866.512.5650

Continuing Education

www.vet.ksu.edu/CE/Conference.htm

June 1-5, 2013

75th Annual Conference for Veterinarians
Hilton Garden Inn and Convention Center,
Manhattan

Test Results and Schedules

**Lab results may be accessed online 24 hours
a day, 7 days a week!**

To set up an account go to:
www.ksvdl.org

KSVDL will be closed on the following days:

Memorial Day: May 21
Independence Day: July 4th

To receive this newsletter by e-mail, contact: DlabOffice@vet.k-state.edu