Poster presentations

Clinical and laboratory alterations in 37 dogs diagnosed with lungworm infection: a retrospective study (July 2010–April 2017)

Valentina Greci, Rachele Riccioni, Valentina Tesei, Rossella Guariglia

Ospedale Veterinario Gregorio VII, roma, Italy

OBJECTIVES

To report the clinical and laboratory findings in 37 dogs diagnosed with lungworm infection.

METHODS

Review of records of dogs diagnosed with lungworm infection.

RESULTS

Twenty-four dogs were male and 13 female. Thirty dogs were pure-breed-dog and seven mixed-breed-dog.

Mean age was 46.7 months (2–156 months). Main duration of clinical signs was 11.4 days (1–60 days). Coughing (23 dogs) and dyspnea (16) were the main symptoms; six dogs exhibited acute onset of neurological signs. Thoracic radiographs showed mild (4/37) to moderate (8/37) or severe (25/37) mixed alveolar-bronchial-interstitial pattern.

CBC-count showed anemia (15/33), leukocytosis (16/33), neutrophilia (15/33), eosinophilia (16/33), monocytosis (12/33), basophilia (5/33), lymphocytosis (3/33) and low PLT count (14/33). Biochemistry showed increase in total protein count (13/29), globulin count (16/29), CPK (17/29), amylase (14/29), C-reactive protein (22/29), phosphorus (11/29) and urea (9/29). Protein-serum-electrophoresis showed increased in the β 1-fraction (11/14 and β -fraction (13/14). Urinalysis showed increase PU/CU (2/4). Coagulative profile was suggestive of DIC (13/17), eleven of these dogs had a mean hematocrit of 24% (17.1–30.1%).

Fecal examination was positive in 22 dogs and negative in two; IDEXX-Angio-detect-text tested positive in 22 dogs and negative in one dog. One dog was diagnosed on BAL and three post-mortem. Overall seven dogs died.

STATEMENT (CONCLUSIONS)

Lungworm infection should be included in the differential diagnosis of dog presenting with respiratory disease and also acute onset of neurological signs. Though hematological alteration is non-specific, the presence of DIC, increase globulin count and β -fraction should alert the clinician to a possible undergoing lungworm infection.

Veterinary surgeons' and nurses' uniforms: how many bacteria do they carry after one shift?

Laura Morgan, Kayleigh Hughes, James Gasson, Kerry Hall, Kelly Blacklock

Animal Health Trust, Newmarket, United Kingdom

OBJECTIVES

To document bacterial contamination on veterinary surgeon and nurse uniforms after a clinical shift within a referral hospital, to investigate influence of home laundry on veterinary surgeon and nurse uniforms after

a clinical shift and to assess veterinary uniform hygiene regimes.

METHODS

Prospective observational cohort study of 9 veterinary surgeons and 8 veterinary nurses (confidence level 95%). Sterilised uniforms were distributed. The results reported were the heterotrophic growth plate count, methicillin-resistant *Staphylococcus aureus* (MRSA) growth, vancomycin-resistant *Enterococci* (VRE), identification of the heterotrophic plate counts and extended-spectrum beta-lactamases (ESBL). Results were grouped together and also grouped into 'veterinary surgeon' and 'veterinary nurse' categories. Paired t-test was performed for plate counts before and after home laundry.

RESULTS

Analysis of data collected (over 80% of this study is completed) demonstrates a mean bacterial count pre-wash of 165.11 colony forming units (cfu)/cm² and a mean bacterial count post-wash of 10.11 cfu/cm² (P value=0.0077). There was no growth of MRSA, VRE or ESBL. Pre-wash scrubs

were also three times more likely to contain *Staphylococcus spp.* compared with post-wash scrubs.

73 out of 78 (93.6%) of participants responded to the questionnaire. 61.6% did not wear a clean scrub top every day, whilst 53.4% did not wear clean scrub trousers every day. Additionally 60.3% left the hospital in their uniform after the working day.

STATEMENT (CONCLUSIONS)

Clinicians and nurses should be aware that bacterial contamination occurs during a shift and that home laundry detergent is effective at reducing bacterial count. A minority of veterinary professionals wear clean scrubs daily.

Detection of Feline Immunodeficiency Virus and Feline Leukemia Virus in tissue samples of domestic cats with *in situ* hybridization

Anna Szilasi, Lilla Dénes, Gyula Balka

University of Veterinary Medicine, Budapest, Hungary

OBJECTIVES

The aim of the project was to detect Feline Immunodeficiency Virus (FIV) and Feline Leukemia Virus (FeLV) in various types of tissues of infected domestic cats with a method of RNAscope®.

METHODS

Multiple tissues from cats were harvested using a standard protocol at the Department of Pathology of

University of Veterinary Medicine, Budapest. Tissues were fixed in 8% neutral buffered formalin for 16–48 hours. Fixed samples were dehydrated in a graded series of ethanol and xylene, followed by infiltration of melted paraffin at 56°C. Sections were cut at a thickness of 5 µm and mounted on the SuperFrost® Plus slides. Ready-to-use reagents from RNAscope® 2.5 HD Reagent Kit-RED were used on our slides and control slides with target and positive/negative control probes as per manufacturers' instructions, in a manual assay workflow. Sections were evaluated with Olympus CX21 light microscope, images were acquired using Nikon imaging system. RNA markers were analyzed based on the average RNA dot number per cell.

RESULTS

FIV and FeLV can be visualized with RNAscope® *in situ* hybridization in various tissue types (spleen, lymph node, kidney, lung, intestine, bone marrow) and also in neoplastic tissues.

STATEMENT (CONCLUSIONS)

In future studies these results with *in situ* hybridization can be compared with other diagnostic methods (e.g. polymerase chain reaction, PCR) to learn more about the pathogenesis of these viruses, and refine data in individual clinical cases.

Investigating expression of proteins associated with glomerular endothelial cell fenestrations in diabetic cats and dogs

Emma Lee¹, Natalie Finch²

- 1 School of Veterinary Sciences, University of Bristol, Bristol, United Kingdom
- 2 Bristol Renal, University of Bristol, Bristol, United Kingdom

OBJECTIVES

To evaluate expression of proteins that play a role in glomerular endothelial cell fenestration formation (Eps homology domain 3&4 [EHD 3&4], moesin and vascular endothelial growth factor [VEGF]) in glomeruli from diabetic compared to control cats and dogs.

METHODS

Kidney tissue was obtained at post-mortem from 11 diabetic dogs (DD), seven diabetic cats (DC), four dogs with glomerulonephritis (GD), three cats with glomerulonephritis (GC) and five cats with normal kidney structure and function (NC). Samples were paraffin-embedded and protein staining using immunohistochemistry was optimised. A standard immunohistochemistry protocol was followed and primary antibodies and dilutions trialled. Glomerular protein expression was evaluated by scoring