CLINICAL ABSTRACTS 2021 | ORAL PRESENTATIONS

Following on from the success of BSAVA Virtual Congress 2021, we are delighted to present to you the 2021 Congress Clinical Abstracts. The congress programme committee have spent many hours reviewing some excellent clinical abstracts this year, with the quality and breadth of the 2021 abstract programme a testament to the high level of clinical research that was submitted.

From critical care to endocrinology and from orthopaedics to exotics, the submissions this year have covered a wide range of exciting developments in veterinary medicine, 30 years on from the first BSAVA Congress Abstracts in 1991. As a sign of the changing times since then, a number of the abstracts were presented in online poster form at the 2021 virtual congress, whilst more than 140 will also be presented orally at BSAVA's Congress Clinical Abstract Presentations Online programme on 24th-26th May 2021.

We would like to thank all the submitting authors for their hard work and for choosing BSAVA Congress as a forum in which to share their findings. We are also grateful for the willingness of oral abstract presenters to embrace the challenges of online presentations again this year – hopefully the experience is an enjoyable and rewarding one.

Thank you again for interacting with BSAVA Congress 2021 and see you next year!

Joe Fenn

BSAVA Congress Clinical Abstracts Chair

Note – the abstracts displayed are as supplied and BSAVA has not corrected typographical errors or edited the submission text. Any errors are the responsibility of the authors.

WEDNESDAY 26 MAY 2021

PM Room 1, 13:30 - 16:30 | Clinical Pathology, Dermatology, Primary Practice and the Profession

13:30 Clinical Potential of Five Serum Biomarkers in The Diagnostic Work-Up of Dogs with Osteoarthritis

James Miles, Michelle Brønniche Møller Nielsen, Lise Nikolic Nielsen, Kristín Aðalsteinsdóttir, Arna Ólafsdóttir

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Objectives

To identify serum biomarkers differentiating dogs with and without osteoarthritis (OA).

Methods

Following institutional ethical approval, 24 dogs (27.2-48.5 kg, 3.6-13.6 years) previously diagnosed with OA affecting different joints with varying severity were included in the study. Sixteen dogs (16.2-36 kg, 2.0-6.7 years) without detectable orthopaedic pathology were included as clinically healthy controls. Other disorders were ruled out by thorough clinical examinations and standard hematological and biochemical analyses. Serum was stored at -80°C until analysis of five biomarkers using commercially available enzyme-linked immunosorbent assays: hyaluronic acid (HA), matrix metalloproteinase 13 (MMP-13), procollagen type IIA (PIIANP), cartilage oligomeric matrix protein (COMP), and collagen type-2 cleavage (C2C). Medians and confidence intervals were calculated and differences between groups were tested for significance using Mann Whitney tests ($p < 0.05$).

Results

Higher concentrations of C2C and MMP-13 were observed in dogs with OA (median, [95% CIs] C2C: 23.7 ng/ml [18.2; 45.2 ng/ml], MMP-13: 0.70 ng/ml [0.51; 1.09 ng/ml]) compared to clinically healthy dogs (C2C: 12.3 ng/ml [10.1; 35.3 ng/ml], MMP 13: 0.34 ng/ml [0.27; 0.88 ng/ml]), whereas lower concentrations of PIIANP were observed in dogs with OA (11.6 ng/ml [10.7; 18.02 ng/ml]) compared to clinically healthy dogs (15.8 ng/ml [11.7; 31.7 ng/ml]). Observed differences were not significant.

Statement (conclusions)

None of the 5 biomarkers measured in the present study could differentiate heterogeneous groups of dogs with and without OA. Further studies are recommended to investigate possible diagnostic potentials of C2C, MMP-13 or PIIANP in subgroups of dogs with OA.

13:45 Canine Peripheral Lymphadenopathy in A Mediterranean Area: A Retrospective Study Of 128 Cases

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¹Ars Veterinaria, Barcelona, Spain. ²Hospital Clínic Veterinari UAB, Barcelona, Spain

Objectives

The aim of the study was to evaluate the characteristics and causes of lymph node enlargement in dogs in a Mediterranean area.

Methods

The study was performed retrospectively, including medical records of dogs admitted with peripheral lymphadenopathy during a 4-year period (2015-2019). The results of cytological examination were defined as lymphadenitis (neutrophilic, eosinophilic or macrophagic), reactive lymph node, lymphoproliferative or metastatic neoplasia. The clinical diagnosis was classified as inflammatory, infectious, immune-mediated disease, lymphoproliferative neoplasia or other neoplasia.

Results

One hundred and twenty-eight dogs were included. The median age was 7.1 year-old. Single and general peripheral lymphadenopathy was present in 48% and 52% of cases, respectively. The most common disease was neoplasia in 54.6% (53% lymphoproliferative and 47% other neoplasia) followed by infectious (22.6%), inflammatory (14,8%) and immune-mediated diseases (7,8%). Thoracic and abdominal lymphadenopathy was significantly more frequent in dogs with lymphoproliferative neoplasia ($p=0,008$). Fever ($>39.5^{\circ}\text{C}$) was statistically more frequently identified in the immune-mediated disease group ($p=0,016$). No statistically significant differences were found between final clinical diagnosis groups regarding haematological parameters (anaemia, leucocytosis, leukopenia and thrombocytopenia). Despite being an endemic area, canine vector borne diseases (CVBD) were identified in only 14% of dogs (16 leishmaniasis; 2 filariasis). No other CVBD were detected (SNAP 4Dx in 26 cases and *Babesia* spp. PCR in 5 cases)

Statement (conclusions)

This study suggests that neoplastic diseases appear to be the leading causes of canine peripheral lymphadenopathy in dogs. Clinicians should consider seeking for the presence of any immune-mediated disease in dogs with peripheral lymphadenopathy and fever.

14:00 Resistance of Canine *Staphylococcus Pseudintermedius* To Selected Topical and Systemic Antimicrobials in the UK

Zoe Donovan

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Objectives

Canine methicillin resistant *Staphylococcus pseudintermedius* (MRSP) is a growing concern due to the wide range of infections this bacterial strain causes. Carriage of the *mecA* gene and penicillin binding protein 2A causes resistance to beta-lactam antimicrobials. This project aimed to (1) investigate phenotypic oxacillin (methicillin) resistance based on CLSI breakpoints compared to EUCAST breakpoints, (2) investigate the carriage of the *mecA* gene using PCR analysis, (3) compare

the carriage of these genes to phenotypic oxacillin resistance using both published breakpoints, (4) compare the presence of *mecA* gene (gold-standard) for the detection of MRSP with two different selective agars.

Methods

PCR analysis was used to identify the presence of MRSP and MSSP isolates, followed by further PCR analysis to identify the carriage of the *mecA* gene. These isolates underwent susceptibility testing using BSAC/CLSI/EUCAST breakpoints and various antibiotics including oxacillin, then testing with two different selective agars. Selected isolates underwent PBP2a testing.

Results

After PCR analysis, 56.73% isolates were identified as *mecA* positive. EUCAST breakpoints correctly identified 57.90% isolates as resistant and CLSI breakpoints correctly identified 47.95% of samples as resistant. Brilliance-MRSA-2 agar correctly identified 45.03% of isolates as positive and MSA-1%-oxacillin agar correctly identified 44.44% of isolates as positive. PBP2a correctly identified 33.33% of isolates as positive.

Statement (conclusions)

PCR analysis was confirmed as the gold-standard of testing. EUCAST breakpoints were the next most effective test, followed by CLSI breakpoints, Brilliance agar, MSA agar and PBP2a testing. These tests could be used as screening to decide which isolates need further analysis by PCR.

14:15 Pet Owners' Willingness to Pay for Therapy Outcomes in Acute Canine Pruritus

Michelle Greaves¹, Andrea Wright¹, Edwina Gildea¹, Louise Longstaff¹, Robin Wyn², Nirav Nagda², Kristina DiPietrantonio², Ashley Enstone², Danielle Riley²

¹Zoetis Inc., Parsippany, USA. ²Adelphi Values PROVE, Bollington, United Kingdom

Objectives

To investigate pet owners' willingness to pay for improvements in quality of life (QoL) and other therapy outcomes in acute canine pruritus.

Methods

Findings from the two qualitative interviews conducted in the current study were combined with insights from previous interviews with pet owners (n=20) to identify key aspects of QoL and attributes of therapies in pruritus. These were subsequently validated through veterinarian interviews (n=4). Therapy profiles and health states were subsequently developed and presented via an online survey to 251 dog owners. Survey questions gathered owners' preferences and their willingness to pay for QoL improvements and therapies at various price points.

Results

Dog owners identified that both investigation of pruritus cause and initiation of treatment are important (6.14 and 6.27; 1 to 7 scale). Approximately half of dog owners were willing to pay to

achieve improvements in dog's itch-related QoL (including in happiness and comfort, frequency of scratching, and physical appearance). Considering (unbranded) therapy profiles that included administration, side effects, and price, significantly more owners preferred oclacitinib (66%) and lokivetmab (61%) over dexamethasone + prednisone/prednisolone (34%–39%; $p < 0.05$), in acute pruritus. Safety and efficacy of treatment were considered more important factors than administration (6.49 and 6.18 versus 5.60; 1 to 7 scale).

Statement (conclusions)

Dog owners value and are WTP for improvements in dog's QoL. Additionally, majority of owners prefer more-tolerable pruritus therapies. Veterinarians should offer all available treatment options for acute pruritus, to ensure that owners are able to achieve the outcomes they desire for their dogs.

14:30 Enhancing Technical Compliance and Minimizing the Exposure to Topicals By Giving Oral Flea Treatment in Cats: A Case Series Of 17 Cats Treated with Lotilaner

Marie-Christine Cadiergues

Université de Toulouse, ENVT, Toulouse, France

Objectives

Suboptimal owner compliance to medication recommendations is a common cause of flea treatment failure. Fear of endangering the animal or family members and dosing difficulties are among the causes of owner non-compliance/non-adherence. We aimed to follow cats treated for the first time with oral lotilaner once a month for 6 months, and evaluate the efficacy and the owner's satisfaction.

Methods

Pruritic cats untreated against fleas by inability or wish of the owner and harbouring fleas were recruited. Oral lotilaner (Credelio®, Elanco France) was prescribed once monthly. Cats were evaluated clinically and bimonthly for six months. Efficacy and global satisfaction of the owner and clinician (0-4) were evaluated at the end of the study.

Results

17 adult cats (9 females and 8 males) were included. They belonged to 16 owners unable to manipulate their cat to apply a pipette ($n=8$), owners reluctant to fit a collar for fear of the risk of strangulation ($n=4$) and owners wishing to avoid any chemical substance on the skin of their cat for fear of children coming into contact with a chemical substance ($n=5$). Efficacy was 100 % in all cats, from month 2 until the end of the study. The mean global satisfaction was 4.9/5 for owners and 5/5 for the investigator.

Statement (conclusions)

This case series underlines the importance for the veterinarian to take into consideration the reluctance and difficulties of owners when prescribing flea control in cats. Oral treatment with lotilaner provides veterinary professionals and cat owners an easy-to-use, effective and safe option in flea control in cats.

15:00 Reshaping Surgical Specialist Training in Small Animal Surgery During and After The COVID-19 Pandemic

Akash Alexander, Heidi Radke

Queen's Veterinary School Hospital, University of Cambridge, Cambridge, United Kingdom

Objectives

The COVID-19 pandemic has created major challenges for veterinary training. The aim of this study was to assess the effects and the perceptions of the effects of the COVID-19 pandemic on small animal surgical specialist training; and to use the results as a base to propose beneficial long-term changes that could be incorporated into these training programmes.

Methods

An anonymous online survey was distributed to all trainees enrolled into a small animal residency programme of the European College of Veterinary Surgeons (ECVS) and ECVS Diplomates acting as supervisors. Descriptive statistics were used to analyse the data. Fisher's exact test was used to test for significance.

Results

Eighty-one analysable responses were collected. A reduction in surgical case load was reported by 81% of respondents, with 82% of those believing that COVID had a mild to moderate impact on training. Residents were significantly more likely to feel that appropriate guidance, a safe working environment and measures to preserve training had not been provided, compared to the opinions of supervisors ($P < 0.01$). Only 45% of the residents reported confidence with performing teleconsultation. Ninety percent of all respondents considered the use of online case presentations and edited surgical footage as a positive ancillary tool.

Statement (conclusions)

Open communication, as well as the use of additional training tools through digital platforms may help to preserve safe and effective training during times of decreased clinical activity. Whilst this study has focused on small animal surgical specialist training, the results could be applied to different educational settings.

15:15 A Survey to Explore the Perceptions, Attitudes and Experiences of UK Veterinary Professionals Towards Adverse Drug Reaction (ADR) Reporting

Heather Davies, Gina Pinchbeck, P-J.M Noble, Munir Pirmohamed, David Killick

University of Liverpool, Liverpool, United Kingdom

Objectives

To investigate:

UK veterinary professionals':

1. Understanding of the requirements for reporting ADRs

2. Past actions taken over observed ADRs and the motivations for such actions
3. Perceived barriers and facilitators in relation to ADR reporting

Methods

In order to explore the perceptions, attitudes and experiences of ADR reporting amongst veterinary professionals in the UK we conducted a cross-sectional questionnaire study of veterinary surgeons and veterinary nurses from 24-Jun-2019 to 26-Jan-2020.

Participants were recruited via advertisements and promotion in the veterinary press, social media and in person at two veterinary conferences.

Statistical analysis consisted of descriptive statistics and Chi-squared (or Fishers Exact tests) were used to test the statistical significance of different respondent characteristics.

Results

There were 260 respondents; 210 veterinary surgeons, 49 veterinary nurses and one SQP. The majority of respondents had reported an ADR, however, veterinary surgeons were more likely to have reported an ADR than veterinary nurses.

The main barrier to reporting identified was the ADR being well-known. Veterinary nurses were less likely to feel that they are too busy to report ADRs compared to veterinary surgeons.

The main proposed facilitator to ADR reporting identified was the ability to report ADRs via the practice management system (PMS). An ADR CPD themed event was a popular idea; especially amongst veterinary nurses.

Statement (conclusions)

The findings of this survey highlight potential interventions to improve reporting rates, including encouraging veterinary nurses to report ADRs following a tailored CPD event and the development of an ADR reporting tool embedded into the PMS.

15:30 A Study to Determine the Working Life of UK Gundogs and Whether Owners Believed They Stopped Work Prematurely

John Houlton

Empshill, Lolworth, United Kingdom

Objectives

To determine the median age at which Spaniels and the Retriever breeds stop working and whether owners believe they have to retire their dogs prematurely.

Methods

A web-based survey, approved by the RCVS Ethics Review Panel, collected data on why gundogs stopped working in the UK between January 1st 2010 and December 31st 2019.

Results

A total of 665 responses were included in the analysis.

The Labrador Retriever was the most common purebred dog (n = 354), followed by the Springer Spaniel (n = 123), Cocker Spaniel (n = 82), Flat Coat Retriever (n = 28), Golden Retriever (n=22), with an assortment of other purebreds reported in fewer numbers (<10 individuals each).

The median age at which all Retriever breeds and all Spaniel breeds stopped working was 10 years. The median age for Labrador Retrievers was 10 years, Golden Retrievers 11 years and Flat Coat Retrievers 9.5 years. The median age for Springer Spaniels was 11 years and for Cocker Spaniels was 9 years.

304 owners (45.7%) owners believed their dogs stopped working prematurely while 361 owners (54.3%) were satisfied with the working lifespan of their dog. Of those who were disappointed, over 90% believed their dog should have worked until it was 10 years or older.

Statement (conclusions)

This study is part of a wider investigation into the impact disorders have on the working life of Gundogs. The majority of owners were happy with the length of their dogs' working lives.

15:45 10 Years of The PDSA Animal Wellbeing (PAW) Report: Surveillance Data on The Welfare of The UK's Pet Dogs, Cats, And Rabbits

Rachel Malkani, Emma Tipton, Lynne James, Vicki Betton, Sean Wensley

PDSA, Telford, United Kingdom

Objectives

Published annually since 2011, the PDSA Animal Wellbeing (PAW) Report provides UK companion animal welfare surveillance to identify trends and priorities, and to promote and monitor change. The 2020 report identified trends over the last decade in the provision of the 5 Welfare Needs of UK pets. Additionally, a post-lockdown survey provided early insights on the impacts of COVID-19 restrictions on pet wellbeing.

Methods

The surveys were conducted with YouGov, using their nationally representative panel of over a million adults living in the UK. Data has been collected from over 83,000 respondents over the last ten years and analysed using generalised linear models. Pre and post-lockdown data were analysed using Z-tests.

Results

From the wealth of results, key findings include an increase in:

- Owners who would consider getting a pet from abroad
- Microchipping across all the species, despite legislation only covering dogs
- Rabbits being fed less muesli-type diets
- Rabbits receiving preventive healthcare

Decrease in:

- Rabbits living alone
- Owners feeling informed about their pet's companionship and behavioural needs
- Owners who would get a puppy from a puppy farm

Impact of COVID-19

- Nearly a quarter of owners reported their pet showing at least one new behaviour
- Primary vaccinations in dogs decreased
- Booster vaccinations in rabbits decreased
- Cats insured increased

Statement (conclusions)

The PAW Report provides the veterinary professions and others with robust data on the main welfare problems affecting the UK's pet dogs, cats, and rabbits. The veterinary professions will be cognisant of where further education, advocacy and human behaviour-change interventions are required.

16:00 Why We Trust Our In-Clinic Laboratory Results?

Archie Moffat, Peter Graham

School of Veterinary Medicine and Science, University of Nottingham, Sutton Bonington, United Kingdom

Objectives

It is not clear how UK practices ensure that results from in-clinic laboratories are reliable, despite frequent reliance on them for clinical decision-making.

Methods

An anonymous questionnaire on the use, interpretation, performance validation and quality assurance (QA) of in-clinic laboratory tests was distributed via social media to UK veterinary professionals. In addition, example manufacturer provided quality control (QC) rules were reviewed. Descriptive analyses were used.

Results

Fifty-five responses were received (21 veterinary surgeons, 28 veterinary nurses and 6 other). The majority of practices carried out most of their biochemistry testing in-clinic but few (16%) independently evaluated their equipment. Veterinary surgeons ranked accuracy as the most important aspect of laboratory testing, however only 10% could answer detailed questions on their practice QC procedures. Most (46/55 (85%)) reported regular QC but only 1/16 detailed responses reported independent rather than manufacturers' protocols. Example manufacturer protocols were inadequate in their sensitivity to detect clinically important failures and in their frequency because of the impractical number of cases to review following a QC failure; half of practices tested more than 60 patients between QC measurements. Only 44% of practices reviewed the impact of QC failures on prior patient management decisions. Around half (29/55 (53%)) reported participation in external QA.

Statement (conclusions)

The results of this study suggest that current in-clinic quality practices cannot adequately assure practitioners of reliable results for clinical decision-making. Greater understanding of in-clinic method limitations and improvement in QA/QC would mitigate risks of incorrect clinical decisions as could greater reliance on quality assured reference laboratories.

16:15 Preliminary Findings of a Multi-Practice Survey (Anicura Group) Into the Diagnostic Approach and Prescribing Habits of First Opinion Veterinarians for Uncomplicated Canine Acute Diarrhoea (UCAD)

Emma Rogers-Smith¹, Anneli Bjöersdorff², Ian Battersby¹

¹Davies Veterinary Specialists, Higham Gobion, United Kingdom. ²Anicura Group, Stockholm, Sweden

Objectives

To understand the current patient management and prescribing practices of first opinion clinicians for cases of UCAD.

Methods

Clinicians completed an online questionnaire on their approach to UCAD. Practices also assessed the last 10 cases seen of UCAD. An EBVM document, providing advice pertaining to each question, the complete survey findings, along with two supporting 30minute webinars was sent to all respondents. A follow up questionnaire will be resubmitted to participating practices after 10 months (COVID delay).

Results

108 clinics from 8 countries responded. 47% of responding clinicians reported undertaking diagnostic procedures as a first line approach to these cases. 20% reported prescribing antibiotics all cases of UCAD and 44% of respondents reporting they never prescribe antibiotics. There was a difference in prescribing practices based on geographic location with Swedish clinicians over-represented in *not* prescribing antibiotics for UCAD (96%) compared with the Netherlands (28%) and Germany (16%). 3% of respondents reported using non-steroidal anti-inflammatory drugs and 4% reported the use of corticosteroids. 37% of respondents reported providing both written and verbal information to clients.

Of the 1080 example cases provided 22% of cases were prescribed at least one antibiotic with metronidazole over-represented (66%). Four cases were prescribed fluoroquinolones first line. 4% of cases received corticosteroids and 8% received NSAIDs.

Statement (conclusions)

The initial survey demonstrates evidence of antimicrobial prescribing in UCAD which is not required. A repeat survey will assess the impact of the interventions provided to improve antimicrobial stewardship.