Oral presentations

over time: – clusterin ($P=0.031$), osteopontin ($P=0.023$) and KIM-1 ($P=0.003$). Clusterin and osteopontin significantly increased at 6–12hrs post-contrast administration and returned to baseline by 12–24hrs and KIM-1 significantly decreased over time.

STATEMENT

The study identified transient changes in some urinary biomarkers following administration of intravenous

contrast agent to dogs. The clinical significance is unclear given the lack of consistency of direction of change between biomarkers but is not strongly supportive of any nephrotoxic effect.

FUNDING/DECLARATIONS OF INTEREST

Sample analysis and data visualisation was performed by Zoetis Animal Health, New Jersey, USA

Early detection of kidney disease in dogs: a comparison of serum SDMA and creatinine versus GFR measured by Iohexol clearance

Ludovic Pelligand, Dan Cotter, Samuel Williams, Jonathan Elliott

Royal Veterinary College, Hatfield, Hertfordshire, UK

OBJECTIVES

This study evaluates symmetrical dimethylarginine (SDMA), as an alternative marker of reduced GFR, compared to serum creatinine (sCr), in a clinically representative population of dogs with suspected chronic kidney disease (CKD).

METHODS

This prospective study included 62 dogs suspected of having CKD based on clinical findings but with sCr within the laboratory reference range. Each dog had sCr, SDMA and GFR (iohexol clearance) measured concomitantly.

The dogs were stratified in four weight quartiles (Bexfield et al. 2008) and the individual relative GFR deviation compared to the average GFR of the relevant weight quartile (%GFR) was calculated. Correlation between sCr or SDMA and %GFR were evaluated and the coefficient of determination (R^2) calculated.

RESULTS

Forty-three dogs had a GFR below the mean of their weight quartile. Nine were >40%, 8 were 30–40%, 7 were 20–30%, 19 were <20% below mean GFR. sCr and SDMA were inversely correlated with %GFR: the relationship was stronger for creatinine ($R^2=0.51$) than SDMA ($R^2=0.38$). SDMA and sCr were elevated in 6/19 (32%) and 0/19 dogs with normal/increased GFR respectively. SDMA and sCr performances are summarised below:

	SDMA >14 µg/dL	sCr >125 µmol/L
Sensitivity	72.0%	25.6%
Specificity	68.4%	100%
Positive predictive value	83.7%	100%
Negative predictive value	52.0%	37.2%

STATEMENT

SDMA was more sensitive than creatinine for detection of early decreases in GFR but generated falsely positive results in 32% of the cases. Longitudinal studies are warranted to determine the predictive value of reduced GFR patients in determining the occurrence of clinical CKD and survival in these patients.

Breed, age and gender distribution of feline hepatobiliary disease in the United Kingdom

Will Bayton¹, Charlotte Westgarth¹, Tim Scase², David Price³, Nick Bexfield¹

- 1 University of Nottingham, Nottingham, UK
- 2 Bridge Pathology Ltd, Bristol, UK
- 3 University of Cambridge, Cambridge, UK

OBJECTIVES

Feline hepatobiliary disease is common, however no data exists to determine which diseases occur in the UK, nor if there are breed, age and gender associations. The first objective is therefore to determine the relative frequency of different feline hepatobiliary diseases in the UK. A second objective is to identify which breeds have an

increased risk of developing individual liver diseases, and to report age and gender predispositions.

METHODS

Histopathology results from feline liver tissues submitted to a commercial laboratory between April 2008 and September 2015 were retrospectively evaluated. The diagnosis according to WSAVA criteria was recorded along with breed, age and gender. Cases were excluded if no definitive diagnosis was reached or if data was incomplete. To identify potential breed predispositions, comparison was made using a UK-based control population consisting of microchipped cats, and odds ratios and 95% confidence intervals calculated. The Mann-Whitney U test was used to determine significant age predispositions.

RESULTS

In total 1452 feline liver samples were assessed, of which 235 were excluded. The most frequent diseases were neutrophilic cholangitis (n=258), reactive hepatitis (n=257), reversible hepatocellular injury (n=106), lymphocytic cholangitis (n=85), biliary cysts (n=73), acute hepatitis (n=70), hematopoietic neoplasia (n=70), hepatocellular neoplasia (n=62), congenital portosystemic shunts (n=48) and cholangiocellular neoplasia (n=39). Breed, age and gender predispositions were identified to several of these.

IMPACT

The liver diseases diagnosed in a large cohort of cats in the UK are reported, along with apparent breed, age and gender predispositions. This information may aid clinicians when diagnosing a cat with suspected liver disease.

The prevalence of gallbladder dysfunction and disease in young dogs investigated for chronic gastrointestinal disease

Albertus D. Viljoen, Panagiotis Archontakis

Vets4Pets Torquay, Torquay, Devon, UK

OBJECTIVES

To investigate the prevalence of gallbladder disorders in young dogs with suspected chronic gastrointestinal disease.

METHODS

A cross-sectional study was conducted based on clinical records of a private practice.

Inclusion criteria were: dogs under five years old, presenting with any clinical signs of anorexia, abdominal pain, vomiting and increased frequency of defecation with or without diarrhoea that persisted for more than six weeks after worm treatment and elimination diet trial

and worm treatment. Complete blood counts (CBC), biochemistry, abdominal x-rays and ultrasound were performed.

Gallbladder disorders tested for included gallbladder distention (>1ml bile/kg body mass), reduced biliary ejection fraction (<25%), biliary sludge and gallbladder wall thickness. Gallbladder distension, ejection fraction, sludge and wall thickness were assessed ultrasonographically. The prevalence of gallbladder disorders was determined. Pain was evaluated pre- and post-operatively, where cholecystectomy was appropriate.

RESULTS

Nineteen dogs met the inclusion criteria. The prevalence for gallbladder disorders was 63%. Concurrent gastrointestinal disease was typical but not consistent. Concurrent skin and ear disorders were a frequent finding. CBC and biochemistry were typically unremarkable.

The prevalence for concurrent cranial abdominal pain was 42%. Where cholecystectomy was performed, resolution of pain was a consistent finding.

STATEMENT

Compared to human medicine, information on prevalence and relevance of gallbladder disorders in veterinary medicine is scarce and when treating and investigating chronic gastrointestinal disease in veterinary practice, gallbladder disorders may be given more consideration.

Biliary-type pain should be considered in dogs with a gallbladder disorder and can be resolved with cholecystectomy.