Of the 37 cats with uroliths, 11 (30%) presented with specific signs of urinary tract disease (e.g. haematuria, pollakiuria, stranguria) and 27 had concurrent biochemistry results available for review. Four of these (15%) had increased serum total calcium.

STATEMENT (CONCLUSIONS)

The prevalence of mineralised uroliths in this population of cats was 18%. More upper urinary tract stones than lower urinary tract stones were detected.

Ultrasonographic findings in cats with acute kidney injury: a retrospective study

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OBJECTIVES

The aims of the study were to identify the ultrasonographic findings in cats with acute kidney injury (AKI) and to assess whether they had prognostic value.

METHODS

A search of the computerised records of the RVC was performed for cats presenting with AKI between 2007 and 2016. Patients were excluded if they had historical data consistent with chronic kidney disease. A control population of cats with no documented renal disease,

that underwent abdominal ultrasound in the same time period, was randomly selected. Ultrasound images were reviewed for the presence of 6 renal sonographic abnormalities. Sonographic findings were compared individually and cumulatively to give an ultrasound score out of 6, between the two groups. Sonographic findings in the AKI group were assessed for association with oligo/an-uria and survival.

RESULTS

Forty-five cats with AKI fulfilled the inclusion criteria. Sixteen cats were included in the control group. In the AKI group, 6.7% (3/45) cats had normal renal size and architecture compared to 68.8% (11/16) cats in the control group. There was a statistically significant difference in ultrasound score between the two groups. In the AKI group there was an association between oligo/an-uria and presence of retroperitoneal fluid alone and ultrasound score and between 6-month survival and ultrasound score.

STATEMENT (CONCLUSIONS)

Sonographic findings are more likely to occur in cats presenting with AKI. The increasing number of renal sonographic abnormalities and the presence of retroperitoneal fluid alone is associated with oligo/an-uria and a higher ultrasound score may suggest a poorer long-term prognosis.

Performance of 2 low-cost pH meters against current pet-side standard

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OBJECTIVES

Evaluate the utility of 2 low-cost portable pH meters and the agreement against a pH meter validated for veterinary use. Comparison of automated multistick reading with validated pH meter.

METHODS

Two-point calibration was performed for all meters at the beginning and every 10 samples. Dipsticks were assessed by an automatic analyzer. Urine samples from 52 dogs collected for clinical reasons were tested. Results of the low-cost meters were compared with the validated meter using Pearson's correlation and Bland-Altman plots. For comparison of multistick, results of the validated meter were converted to the nearest corresponding pH unit measurable on the multistick before analysis.

RESULTS

The nearest reference result frequently deviated by 0.5 units from the multistick reading. Strong correlation was present between the nearest reference result and multistick reading ($r^2=0.76$). Both low-cost meters' large footprint necessitated a larger minimum volume of urine than reference method. Both pH meters had very strong correlation with the validated pH meter ($r^2=0.998$ and 0.9975). For Bland-Altman, 95% limits of agreement were

Oral presentations

–0.05 to 0.05 and –0.12 to 0.07. Bias for both was negative but clinically insignificant (–0.004 and –0.02).

STATEMENT (CONCLUSIONS)

This study confirmed that pH reading for multisticks frequently varies from reference pH. Both pH meters

which were 10% of the cost of the validated meter performed well and provided comparable results to the validated meter. The low-cost of these meters may encourage increased use of pH meters in clinical practice.

Angiotensin-converting enzyme inhibitors in the treatment of idiopathic renal haematuria

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OBJECTIVES

Idiopathic renal haematuria (IRH) is a rare, poorly understood condition resulting in chronic and sometimes severe blood loss. Given the inevitable detriment of ureteronephrectomy on renal function and high incidence of bilateral disease, various interventional treatments have been previously investigated, however all are invasive procedures and not widely available. Angiotensin-converting Enzyme inhibitors (ACEi) are known to decrease intra-glomerular pressure and this study therefore aimed to investigate their efficacy in the treatment of IRH.

METHODS

Medical records (2005–2017) of dogs diagnosed with IRH and treated with ACEi were reviewed. Follow-up data was obtained by telephone consultation with referring veterinary practices and response to treatment was based on clinical signs and repeat urinalyses.

RESULTS

Of 9 included dogs, 4 had cystoscopically confirmed haemorrhage from the ureterovesicular junction (all unilateral) and 5 were diagnosed based on exclusion of other aetiologies. 8/9 cases received benazepril (median 0.40 mg/kg/24 h; range 0.19–0.57) and one case received enalapril (0.40 mg/kg/24 h). Resolution of gross and microscopic haematuria occurred in 2/9 cases (22%), with clinical improvement in a further 4/9 (44%), and no improvement in 3/9 (33%). No treatment-related adverse effects were reported. 6 cases were still alive at the time of data collection (median follow-up 376d; range 49–2070d) and median survival of the remaining 3 euthanased dogs was 1233d (range 835–1412).

STATEMENT (CONCLUSIONS)

ACEi therapy may be a safe and effective treatment option for the management of IRH. Resolution or improvement of haematuria occurred in the majority of treated dogs in this study and may result in prolonged survival.

Use of an ultrasonographic screening method to identify the location of the ureteric openings in clinically normal Golden retrievers

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OBJECTIVES

1. To identify whether ectopic ureters are present in clinically normal Golden retrievers
2. If present, to document whether males and females are equally affected
3. To assess whether pre-breeding ultrasound screening could be a useful test in this breed to reduce the incidence of clinical ureteral ectopia

METHODS

Clinically normal Golden retriever dogs, with no history of urinary incontinence, were recruited to the study. Colour flow Doppler ultrasound examination of the bladder was performed in all dogs to identify the location of the ureterovesicular junctions (UVJs). The distance of each UVJ from the bladder neck was recorded. Ureters were classified as type A if this measurement was >2 cm, type B if <2 cm and type C if the UVJ was within the urethra (ectopic).