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