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).

STATEMENT (CONCLUSIONS)
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.
RESULTS
Fifty dogs were recruited to the study and 47 were eligible for inclusion; 32 females and 15 males. Type A ureters were identified bilaterally in 73% males and 64% females. Ectopic ureters (type C) were identified in 2 males (13%) and 2 females (6%). The overall prevalence of ureteral ectopia in these clinically normal dogs was 8.5%.

STATEMENT (CONCLUSIONS)
Ectopic ureters may be present in normal Golden retrievers, with no clinical signs of urinary incontinence. This may have significant implications for breeding and the incidence of ‘wet puppies’ born, requiring treatment or euthanasia.

Analytical performance of catalyst SDMA test for measurement of symmetric dimethylarginine (SDMA) in serum from dogs

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OBJECTIVES

METHODS
1. Serum samples from 105 dogs, including a mixture of healthy animals and patients with kidney disease, were analyzed once with CatalystSDMA (using an IDEXX Catalyst Dx® Chemistry Analyzer) and once with RefSDMA. A correlation plot was constructed with Passing-Bablok Regression analysis. 2. For each assay, results (to the nearest whole number) were assigned to one of three categories: ≤14 μg/dL; 15 to 19 μg/dL; ≥20 μg/dL. The percentage agreement between the two assays was calculated. For the discordant samples, the distribution of the absolute differences between results was determined.

RESULTS
1. $r=0.98$, slope=1.01 [95% CI 0.97–1.04], intercept =0.52 μg/dL [95% CI −0.25–1.03], mean bias=−0.44 μg/dL [95% CI −1.09 to 0.20]; in the range 10 to 25 μg/dL by RefSDMA, the mean bias was 0.28 μg/dL. For 100 (95%) of the 105 samples, the methods were concordant. For the discordant samples, the median absolute difference was 2 μg/dL [range 2 to 8 μg/dL].

STATEMENT (CONCLUSIONS)
The excellent correlation, minimal bias and strong concordance with the reference method provide confidence that the veterinary practitioner can utilize CatalystSDMA for in-clinic measurement of canine SDMA.