RESULTS

The mean serum IS concentration dropped significantly from 1637.6 mg/L (day 0) to 650.6 mg/L (day 56) in the treatment group ($p = 0.0058$) while no significant change was observed in the control group (from 323.8 mg/L on day 0 to 599.7 mg/L on day 56; $p = 0.5670$).

STATEMENT (CONCLUSIONS)

Daily administration of renaltec reduced serum IS levels by more than 60% in this cohort of cats after 8 weeks of treatment. Further studies are needed to investigate the effects of renaltec on IS levels in cats with confirmed CKD.

Prevalence and characterization of urinary cultures in owned dogs and cats from Spain

**Anna Vila¹, Eduardo Hernáñez¹,
Jaume Rodón², Xavier Roura¹**

- 1 Hospital Clínic Veterinari, Universitat Autònoma de Barcelona, Barcelona, Spain
- 2 Idexx Laboratories, Barcelona, Spain

OBJECTIVES

Due to the lack of information among urinary tract infection (UTI) in Spain, our objective is to describe the prevalence and characterization of urinary tract pathogens in urine samples from dogs and cats with urinary clinical signs.

METHODS

This is a cross-sectional study with records of canine and feline urine cultures from all Spain during a one-year

study period (March 2017–2018). The urine samples were collected from dogs and cats with clinical signs of UTI and delivered by the veterinary on duty to Idexx's laboratories for culture.

RESULTS

A total of 9,957 (6772 canine; 3185 feline) urinary cultures were performed with 34.6% yielded positive. Although 110 different bacterial and fungal species were isolated, only 7 bacterial genera accounted for 90.6% of the urinary isolates, including: *Escherichia coli* (49.56%), *Proteus* spp. (12.12%), *Enterococcus* spp. (9.80%), *Staphylococcus* spp. (8.40%), *Klebsiella* spp. (4.55%), *Pseudomonas* spp. (4.03%), and *Streptococcus* spp. (2.11%). Among these genera, dogs had a generally higher predisposition than cats did, 39.29% and 24.7% respectively. Distributions of UTI diagnosis tended to be similar between species, although *Enterococcus* spp. had been more prevalent in cats. Infection with single bacteria was responsible for 93.76% of UTI in both species.

STATEMENT (CONCLUSIONS)

Given the results of the present study, canine and feline UTI in Spain can be characterized as follows: (1) bacterial UTIs were more prevalent than in previous reports; (2) the vast majority of canine UTI were caused by single bacteria; (3) *Escherichia coli* was singularly the most prevalent agent in canine and feline UTI.

Canine urinary extracellular vesicles as bactericidal agents *in vitro*

**Samantha Raettig¹, Fiona E. Karet Frankl²,
Tim Williams³**

- 1 School of Veterinary Sciences, University of Bristol, Bristol, United Kingdom
- 2 Departments of Medical Genetics and Division of Renal Medicine, University of Cambridge, Cambridge, United Kingdom
- 3 Department of Veterinary Medicine, University of Cambridge, Cambridge, United Kingdom

OBJECTIVES

Urinary extracellular vesicles (UEVs) from healthy human volunteers exhibit bactericidal activity *in vitro* which is independent of the bacteriostatic urinary protein, uromodulin. Thus, UEVs are postulated to be innate immune effectors of the urinary tract. This study aimed to evaluate the bactericidal activity of canine UEV preparations.

METHODS

Free-catch urine samples were collected from client-owned dogs. Triplicate aliquots of UEVs isolated by differential centrifugation were co-incubated with luminescent BL21 *E. coli*, previously transfected with the *luxCDABE* operon. Luminescence was determined half-hourly and area under the growth curve (AUC) calculated. UEVs were classified as bactericidal if AUC of BL21 *E. coli* co-incubated with UEVs was significantly lower

Delivered by BSAVA to:

Guest (guest)

IP: 3.89.197.203

On: Wed, 26 Apr 2023 15:17:22