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In the Spotlight: Management of feline lower urinary tract disease (FLUTD) and urinary tract infections in cats and dogs

Search strategy

Database: CAB Abstracts <2000 to 2018 Week 13>
Search Strategy:
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1 (Cats or dogs or canine* or feline*).mp.
2 (diagnos* or biomarker* or stage or staging or treat* or therap* or nutrition* or diet* or manag*).mp.
3 (FLUTD or "feline lower urinary tract" or "urinary tract infection*").mp.
4 1 and 2 and 3
5 limit 4 to yr="2008 -Current"

****
[mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]

Selection of references from CAB Abstracts database

<1>
Accession Number
20183095509
Author
Baigi, S. R.; Vaden, S.; Olby, N. J.
Title
The frequency and clinical implications of bacteriuria in chronically paralyzed dogs.
Source
Journal of Veterinary Internal Medicine; 2017. 31(6):1790-1795. 23 ref.
Publisher
Wiley
Location of Publisher
Boston
Country of Publication
USA
Abstract
Background: Paralysis is a known risk factor for urinary tract infections (UTI), sepsis, and death in paralyzed people, but there are no data available on diagnostic criteria for UTI versus bacteriuria, their frequency, or clinical implications in chronically paralyzed dogs. Hypothesis/Objectives: That chronically paralyzed dogs suffer frequent bacteriuria causing reduced duration of survival. We documented the frequency of bacteriuria, associated clinical signs, and survival rate in chronically paralyzed dogs. Animals: Forty-seven client-owned dogs paralyzed with no pelvic limb pain perception for >3 months and at least one urine culture (UC) performed. Methods: Retrospective, observational study. Medical records of dogs meeting inclusion criteria were reviewed for results of UC, urinalysis, and clinical signs. Outcome was compared between dogs with and without bacteriuria. Results: Thirty-five of 47 dogs had at least 1 positive UC, and 13 had recurrent bacteriuria. Rectal temperature and urinalysis results were extracted from records. Fever was present at time of UC in 5 of 68 observations, 2 with and 3 without bacteriuria. Pyuria was significantly associated with positive cultures (P<0.001), cloudiness was not (P=0.076). Survival data in 35 dogs (8 dead) showed no association between bacteriuria and survival (P=0.69). Conclusions and Clinical Importance:

Bacteriuria is common in paralyzed dogs but does not cause fever; diagnostic criteria of UTI are unclear. We did not detect an association of bacteriuria with survival, but this needs further confirmation.
Publication Type
Journal article.

<2>
Accession Number
20183050866
Author
Dodig, T.; Brkljacic, M.; Matijatko, V.; Torti, M.; Crnogaj, M.; Krsteska, G. J.; Kis, I.
Title
Clinical and laboratory parameters in dogs with hyperadrenocorticism and urinary tract infection. [Croatian]
Source
6. Hrvatski Veterinarski Kongres s meunarodnim sudjelovanjem, od 26. do 29. listopada 2016, Opatija, Hrvatska. Zbornik Radova; 2016. :467-474. many ref.
Publisher
Hrvatska Veterinarska Komora, Veterinarski Fakultet in Zagrebu
Location of Publisher
Zagreb
Country of Publication
Croatia
Abstract
The aim of this study was to determine the presence of urinary tract infection (UTI), the presence of lower urinary tract clinical signs and urinalysis changes. All the dogs with complete documentation diagnosed with spontaneous HAC at the Clinic for internal diseases of the Veterinary Faculty in Zagreb between 1st June 2012 and 1st June 2015 were included in the study. There were 36 dogs identified, of which 16 (44,5%) had UTI. Of dogs with UTI clinical signs were present in 7 (43%) of patients. Microscopic sediment changes in dogs with UTI were haematuria 31%, pyuria 56% and 69% bacteriuria. In this research only the presence of pyuria was proven to be statistically significant between groups with and without UTI. E. coli was the most frequently isolated bacteria (56%).
Publication Type
Conference paper.

<3>
Accession Number
20183032598
Author
Livet, V.; Pillard, P.; Goy-Thollot, I.; Maleca, D.; Cabon, Q.; Remy, D.; Fau, D.; Viguier, E.; Pouzot, C.; Carozzo, C.; Cachon, T.
Title
Placement of subcutaneous ureteral bypasses without fluoroscopic guidance in cats with ureteral obstruction: 19 cases (2014-2016).
Source
Journal of Feline Medicine and Surgery; 2017. 19(10):1030-1039. 31 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks

Country of Publication
USA
Abstract
Objectives: The purpose of this study was to describe the perioperative and postoperative complications as well as short-term and long-term outcomes in cats with ureteral obstructions treated by placement of a subcutaneous ureteral bypass (SUB) device without imaging control. The second objective of this study was to compare cats treated by SUB device with cats treated by traditional surgical intervention. Methods: Data were obtained retrospectively from the medical records (2014-2016) of cats that underwent SUB placement (SUB cats) and cats that underwent traditional ureteral surgery (C cats). Results: Nineteen SUB devices were placed without fluoroscopic, radiographic or ultrasonographic guidance in 13 cats. Fifteen traditional interventions (ureterotomy and neoureterocystostomy) were performed in 11 cats. Successful placement of the SUB device was achieved in all cats with only one major intraoperative complication (kinking of the kidney catheter) and one minor intraoperative complication (misplacement of the kidney catheter). Eleven SUB cats recovered from the surgical procedure; two SUB cats and three C cats died during the anaesthesia recovery period. Postoperative SUB complications included anaemia (n=2), urinary tract infection (UTI) (n=4), non-infectious cystitis (n=5) and SUB device obstruction (n=1). Postoperative traditional surgery complications included anaemia (n=7), UTIs (n=6), non-infectious cystitis (n=1), re-obstruction (n=4) and ureteral stricture (n=1). Median postoperative duration of hospitalisation (3 days) was significantly shorter for SUB cats than for C cats (P=0.013). Ten SUB cats (76.9%) and four C cats (40%) were still alive at a median follow-up of 225 days and 260 days, respectively. Owners were completely (90%) or mostly (10%) satisfied with the SUB device placement. Conclusions and relevance: SUB device placement appears to be an effective and safe option for treating ureteral obstruction in cats, and this study has shown that fluoroscopic guidance is not essential in all cases.
Publication Type
Journal article.

<4>
Accession Number
20183017960
Author
Uemura, A.; Tanaka, R.
Title
Unilateral renal agenesis in an aged dog with severe urine accumulation and urinary tract infection.
Source
Kafkas Universitesi Veteriner Fakultesi Dergisi; 2018. 24(1):153-157. 17 ref.
Publisher
Kafkas Universitesi, Veteriner Fakultesi Dergisi
Location of Publisher
Kars
Country of Publication
Turkey
Abstract
A 7-year-old intact female Large Munsterlander developed abdominal distention. Computed tomography showed absence of the right kidney and ureter, marked hydronephrosis, and left ureter dilatation. Five years later, the patient was hospitalized as an emergency. Diagnostic imaging showed a >350-mm-diameter cyst communicating with the left kidney displacing the abdominal organs, another approximately 150-mm diameter cyst in the right kidney position, and marked parenchymal thinning of the left kidney. At laparotomy, a left kidney nephrostomy was established; 8.230 mL of urine were drained with paracentesis. There was no ureter connecting the left kidney and bladder, but an enlarged, ureterocele-like, tubular organ connected the left kidney to a urine-containing cyst on the right side. A short, tubular organ connected the urine-containing cyst on the right side with a bladder-like organ, but it showed almost no urine accumulation. Urine cultures tested positive for Klebsiella pneumoniae. Postoperatively, the patient was discharged after four days. This is

the first case about unilateral renal agenesis (URA) in an aged dog. Some dogs may have undiagnosed URA. When URA manifests after a dormant period, cases may be severe, with total loss of appetite, abdominal distension, elevated inflammatory markers, and cyst-like phenomena on abdominal ultrasonography. In such cases, URA must be considered in the differential diagnosis.
Publication Type
Journal article.

<5>
Accession Number
20183003536
Author
Simpson, A. C.; Schissler, J. R.; Rosychuk, R. A. W.; Moore, A. R.
Title
The frequency of urinary tract infection and subclinical bacteriuria in dogs with allergic dermatitis treated with oclacitinib: a prospective study.
Source
Veterinary Dermatology; 2017. 28(5):485-e113.
Publisher
Wiley
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Background: Oclacitinib is a selective Janus kinase inhibitor for the treatment of canine allergic pruritus and atopic dermatitis in dogs. Glucocorticoids and ciclosporin increase urinary tract infection (UTI) frequency in dogs with inflammatory skin disease. Objective: Prospective study to evaluate the frequency of UTI and subclinical bacteriuria in dogs with allergic dermatitis receiving oclacitinib. Methods: Client-owned dogs >=2 years of age with a history of allergic dermatitis without apparent history of urinary tract disease or predisposition to UTI were included. Prior to enrolment, urinalysis and quantitative urine culture were performed after a washout period of at least 14 days from systemic antimicrobial drugs and 28 days for ciclosporin and systemic glucocorticoids. Dogs received oclacitinib at labelled dosing for an intended period of 180-230 days with a follow-up urinalysis and urine culture performed regardless of urinary tract signs. Systemic antimicrobial and immune-modulating drugs were not administered during the study. Results: None of the 55 dogs in this study developed UTI while receiving oclacitinib based on follow-up urinalysis and urine culture performed during a range of 58-280 days (mean 195 days). Two dogs developed self-limiting abnormal urinary tract signs without urine culture or urinalysis findings consistent with UTI. Conclusions and clinical importance: These findings indicate that bacteriuria is not an expected adverse effect in dogs treated with oclacitinib without a prior history of UTI or predisposing condition during this treatment period. Therefore, routine urine culture is not indicated for such dogs in the absence of abnormal urinalysis or clinical signs of urinary tract disease.
Publication Type
Journal article.

<6>
Accession Number
20173365261
Author

Kent, M. S.; Zwingenberger, A.; Westropp, J. L.; Barrett, L. E.; Durbin-Johnson, B. P.; Paramita Ghosh; Vinall, R. L.
Title
MicroRNA profiling of dogs with transitional cell carcinoma of the bladder using blood and urine samples.
Source
BMC Veterinary Research; 2017. 13(339):(15 November 2017). 73 ref.
Publisher
BioMed Central Ltd
Location of Publisher
London
Country of Publication
UK
Abstract
Background: Early signs of canine transitional cell carcinoma (TCC) are frequently assumed to be caused by other lower urinary tract diseases (LUTD) such as urinary tract infections, resulting in late diagnosis of TCC which could be fatal. The development of a non-invasive clinical test for TCC could dramatically reduce mortality. To determine whether microRNAs (miRNAs) can be used as non-invasive diagnostic biomarkers, we assessed miRNA expression in blood and/or urine from dogs with clinically normal bladders (n=28), LUTD (n=25), and TCC (n=17). Expression levels of 5 miRNA associated with TCC pathophysiology (miR-34a, let-7c, miR-16, miR-103b, and miR-106b) were assessed by quantitative real-time PCR. Results: Statistical analyses using ranked ANOVA identified significant differences in miR-103b and miR-16 levels between urine samples from LUTD and TCC patients (miR-103b, p=0.002; and miR-16, p=0.016). No statistically significant differences in miRNA levels were observed between blood samples from LUTD versus TCC patients. Expression levels of miR-34a trended with miR-16, let-7c, and miR-103b levels in individual normal urine samples, however, this coordination was completely lost in TCC urine samples. In contrast, co-ordination of miR-34a, miR-16, let-7c, and miR-103b expression levels was maintained in blood samples from TCC patients. Conclusions: Our combined data indicate a potential role for miR-103b and miR-16 as diagnostic urine biomarkers for TCC, and that further investigation of miR-103b and miR-16 in the dysregulation of coordinated miRNA expression in bladder carcinogenesis is warranted.
Publication Type
Journal article.

<7>
Accession Number
20173350088
Author
Frem, D. L.; Hottinger, H. A.; Hunter, S. L.; Trout, N. J.
Title
Use of poliglecaprone 25 for perineal urethrostomy in cats: 61 cases (2007-2013).
Source
Journal of the American Veterinary Medical Association; 2017. 251(8):935-940. 35 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
OBJECTIVE: To determine frequency of postoperative complications in cats undergoing perineal urethrostomy (PU) in which poliglecaprone 25 was used for closure and identify possible predisposing factors for development of complications. DESIGN: Retrospective case series. ANIMALS: 61 cats that underwent PU. PROCEDURES: Medical records for cats that underwent PU at Gulf Coast Veterinary

Specialists between 2007 and 2012 were reviewed. Information regarding signalment, perioperative conditions, surgical procedures, treatments, and postoperative complications were obtained from medical records and by telephone follow-up. RESULTS: 11 of 61 (18%) cats developed minor short-term (ie, <=2 months after surgery) complications, 1 of 61 (1.6%) cats developed a major short-term complication requiring surgical revision, and 16 of 38 (42%) cats developed minor long-term complications. No major long-term complications were identified. Preoperative urinary tract infection was significantly associated with development of minor short-term complications, but use of an indwelling urinary catheter after surgery was not significantly associated with development of postoperative complications. CONCLUSIONS AND CLINICAL RELEVANCE: Results suggested that poliglecaprone 25 may be an acceptable suture for apposition of mucosa to skin in cats undergoing PU. Short- and long-term complication rates and percentage of cats requiring revision surgery were comparable to values reported in previous studies in which slowly absorbable or nonabsorbable sutures were used.
Publication Type
Journal article.

<8>
Accession Number
20173331704
Author
Barbosa, B. C.; Tassini, L. E. de S.; Silva, D. H. L.; Rosa, D. B. de S. K.; Nogueira, F. F.; Paes, P. R. de O.; Leme, F. O. P.
Title
Electrophoresis urinary of septic dogs: review. [Portuguese]
Source
PUBVET; 2017. 11(11):1119-1122. 17 ref.
Publisher
Pubvet
Location of Publisher
Maringa
Country of Publication
Brazil
Abstract
The septic conditions are constant in the routine of the intensive care sector, with acute renal injury being the main organic dysfunction observed in these patients, contributing to the high mortality rate. Early diagnosis of renal damage in these settings is of fundamental importance and contributes positively to the prognosis. The diagnostic methods of renal injury, however, are still restricted. Electrophoresis allows the separation of low molecular weight proteins in the urine and may represent an early marker of injury associated with a targeting of the therapy adopted.
Publication Type
Journal article.

<9>
Accession Number
20173263776
Author
Bruchim, Y.; Avital, Y.; Horowitz, M.; Mazaki-Tovi, M.; Aroch, I.; Segev, G.
Title
Urinary heat shock protein 72 as a biomarker of acute kidney injury in dogs.

Source
Veterinary Journal; 2017. 225:32-34. 9 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Early recognition of acute kidney injury (AKI) is important, as therapy is potentially more efficacious if instituted early in the course of disease. Urinary heat shock protein-72 to urinary creatinine ratio (uHSP72/uCr) was assessed as a diagnostic and prognostic marker in AKI in dogs. Fifty-three dogs were enrolled in five groups: healthy controls (n=11), urinary tract infection (n=10), chronic kidney disease (CKD; n=11), AKI (n=13), and acute decompensating CKD (n=8). Urinary heat shock protein-72 to urinary creatinine ratio was highest in the AKI group (P<0.001 when compared to the control and urinary tract infection groups, individually; P>0.05 compared to each of the other two groups). The area under the curve (AUC) for the receiver operator characteristic (ROC) analysis of uHSP72/uCr to predict AKI, compared to the control group, was 0.97. A cutoff value of 0.20 ng/mg corresponded to sensitivity and specificity of 100% and 82%, respectively. Urinary heat shock protein-72 to urinary creatinine ratio was significantly lower in dogs categorized as survivors vs. non-survivors of AKI; ROC AUC, 0.91 (95% confidence intervals, 0.74-1.0). Urinary heat shock protein-72 to urinary creatinine ratio is a potentially useful diagnostic and prognostic biomarker of AKI in dogs.
Publication Type
Journal article.

<10>
Accession Number
20173260335
Author
Lew-Kojrys, S.; Mikulska-Skupien, E.; Snarska, A.; Krystkiewicz, W.; Pomianowski, A.
Title
Evaluation of clinical signs and causes of lower urinary tract disease in Polish cats.
Source
Veterinarni Medicina; 2017. 62(7):386-393. 31 ref.
Publisher
Institute of Agricultural Economics and Information
Location of Publisher
Prague
Country of Publication
Czech Republic
Abstract
This paper describes the results of a retrospective study performed on 385 cats with feline lower urinary tract disease. The study was conducted to obtain epidemiological data and to evaluate clinical symptoms and the results of laboratory tests in a population of Polish cats with symptoms of lower urinary tract disease. The analysed population comprised feline patients of the veterinary clinic at the University of Warmia and Mazury in Olsztyn who had not been treated prior to admission. Medical history was obtained for all patients. Urine samples were collected mostly, but not solely, by cystocentesis. Feline idiopathic cystitis was diagnosed in most cats (60.7%), while urinary tract infections were noted in only 7.8% of patients. Urethral obstruction caused by mucus plugs was observed in 17.4% of animals. Urolithiasis was observed in 13% of cats, 5% of whom were also diagnosed with urinary tract infections. Hyperplastic changes were identified in only 1% of the studied population. In 59% of cats, feline lower urinary tract disease was accompanied by urethral obstruction. Cats with feline idiopathic cystitis were the youngest animals in the analysed population,

and the risk of urinary tract infections and neoplasia increased with age. Our results, obtained over a period of six years in a Polish feline population, show that sex, neutering, age, living conditions and diet influence the type of urinary tract disease, data which are consistent with those obtained in other countries.
Publication Type
Journal article.

<11>
Accession Number
20173223120
Author
Robino, P.; Tramuta, C.; Nucera, D.; Odore, R.; Zanatta, R.; Nebbia, P.
Title
First detection of CTX-M producing Escherichia coli ST131 in cats with urinary infection in Italy.
Source
LXVII Convegno Nazionale S.I.S.Vet (Societa Italiana delle Scienze Veterinarie), Joint Meeting 2 degrees Convegno REEV, Reseau des Etablissements D'Enseignement Veterinaire de la Mediterranee, Brescia, Italia, 17-19 Settembre 2013. Abstracts; 2013. :137-138. 7 ref.
Publisher
Societa Italiana delle Science Veterinarie (SISVet)
Location of Publisher
Brescia
Country of Publication
Italy
Publication Type
Conference paper.

<12>
Accession Number
20173246719
Author
Xavier Junior, F. A. F.; Morais, G. B. de; Barroso, I. C.; Freitas, V. M. de L.; Barbosa, K. D. da S. M.; Viana, D. de A.; Evangelista, J. S. A. M.
Title
Clinical monitoring therapeutic a cat with a chronic kidney disease positive for a viral immunodeficiency and urinary infection. [Portuguese]
Source
Ciencia Animal; 2016. 26(2):27-34. 13 ref.
Publisher
Universidade Estadual do Ceara, Faculdade de Veterinaria
Location of Publisher
Ceara
Country of Publication
Brazil
Abstract
Kidney chronic disease is the most frequently diagnosed disease in companion animals and it is the second cause of death in cats. Major clinical signs in cats are weight loss, anorexia/loss of appetite, dehydration, depression, polydipsia, polyuria, vomiting, weakness, and constipation. Obtaining an accurate diagnosis and improving management and prognosis of renal ill is easier accomplished by a careful medical history and use

of complementary tests such as hematological, biochemical, imaging, and urinary. Therapeutic approach is performed according to the stages of CKD determined by IRIS. The treatment should be adapted for each patient. The serial monitoring of these patients is ideal and treatment should be adapted according to their response to the treatment. Based on the assumption, we aimed to describe a case report of a cat with CKD, positive for FIV associated with urinary tract infection. The patient showed anorexia, dehydration, and gingivitis with dental plaque. During palpation was noticed reactive lymph nodes and small fibrotic kidney. The diagnosis was confirmed by complete blood count, clinical chemistry, urinalysis and abdominal ultrasound. The chosen therapy was according to the guidelines of IRIS: fluid therapy, renal diet, chelation and use sodium bicarbonate. Urinary tract infection was treated with antibiotic administration and it provided a clinical improvement and increased quality of life. performed according to the stages of CKD determined by IRIS. The treatment should be adapted for each patient. The serial monitoring of these patients is ideal and treatment should be adapted according to their response to the treatment. Based on the assumption, we aimed to describe a case report of a cat with CKD, positive for FIV associated with urinary tract infection. The patient showed anorexia, dehydration, and gingivitis with dental plaque. During palpation was noticed reactive lymph nodes and small fibrotic kidney. The diagnosis was confirmed by complete blood count, clinical chemistry, urinalysis and abdominal ultrasound. The chosen therapy was according to the guidelines of IRIS: fluid therapy, renal diet, chelation and use sodium bicarbonate. Urinary tract infection was treated with antibiotic administration and it provided a clinical improvement and increased quality of life.
Publication Type
Journal article.

<13>
Accession Number
20173243577
Author
Jang InSung; Yoon WonKyoung; Hyun ChangBaig
Title
Candida albicans urinary tract infection in a Shih Tzu dog with immune-mediated hemolytic anemia.
Source
Korean Journal of Veterinary Research; 2017. 57(2):139-141. 11 ref.
Publisher
Korean Society of Veterinary Science
Location of Publisher
Daejon
Country of Publication
Korea Republic
Abstract
An 8-year-old castrated male Shih Tzu dog (weighing 7.0 kg) presented with anemia and lethargy. Initial diagnosis indicated immune-mediated hemolytic anemia. During therapy, a secondary urinary infection, probably due to the immune suppressive therapy, was diagnosed. Subsequent diagnostic tests, including urinalysis and urine culture, indicated candidal cystitis. Despite ketoconazole therapy for candidal cystitis, the dog died suddenly. A Candida albicans infection was confirmed upon postmortem evaluation. Prolonged immunosuppressive therapy might be the cause of this infection. This is the first case report describing a Candida albicans urinary tract infection accompanied by hemolytic anemia in a dog in Korea.
Publication Type
Journal article.

<14>

Accession Number
20173199655
Author
Vercelli, A.; Mottet, J. M.
Title
Evaluation of speed of clinical cure and bacteriological cure of pradofloxacin in canine uncomplicated urinary tract infections. [Italian]
Source
Summa, Animali da Compagnia; 2017. 34(5):55-62. 21 ref.
Publisher
Point Veterinaire Italie s.r.l.
Location of Publisher
Milano
Country of Publication
Italy
Abstract
Background: Uncomplicated urinary tract infections (UTI) are often empirically treated with antimicrobials. Typically, these infections are treated for 7-14 days. Shorter durations of therapy have been evaluated extensively in human medicine and for some veterinary medicines with the aim to reduce days of treatment and improve compliance. Hypothesis: pradofloxacin at 3 mg/kg PO q24h in dogs with uncomplicated UTI will clear the infection in 3 days Animals: Thirty-five client-owned, adult and otherwise healthy dogs with clinical signs suggestive of UTI were screened. Nineteen out of 35 dogs (51%) had a positive urine culture and they were included in the study. Three days of pradofloxacin treatment at 3 mg/kg PO q24h cures the vast majority of dogs with uncomplicated UTI.
Publication Type
Journal article.

<15>
Accession Number
20173220305
Author
Sampaio, K. O.; Granja, L. C.; Rocha, M. A.; Sousa Filho, R. P. de
Title
Frequency of bacteriuria in cats with feline lower urinary tract disease. [Portuguese]
Source
Ciencia Animal; 2016. 26(1):85-87. 9 ref.
Publisher
Universidade Estadual do Ceara, Faculdade de Veterinaria
Location of Publisher
Ceara
Country of Publication
Brazil
Publication Type
Journal article
Conference paper.

<16>
Accession Number

20173003526
Author
Joshi, M. M.; Darji, P. P.
Title
Therapeutic management of feline urinary tract disease in Persian cat.
Source
Indian Veterinary Journal; 2016. 93(11):56-57. 2 ref.
Publisher
Indian Veterinary Association
Location of Publisher
Chennai
Country of Publication
India
Abstract
A male Persian cat was presented in Pets Clinic, Borivali, with Feline Lower Urinary Tract Disease. The cat was treated for 30 days with antibiotics, supportive therapy and fluid therapy.
Publication Type
Journal article.

<17>
Accession Number
20173017122
Author
Courtice, R.; Sniatynski, M.; Rubin, J. E.
Title
Antimicrobial resistance and beta-lactamase production of Escherichia coli causing canine urinary tract infections: passive surveillance of laboratory isolates in Saskatoon, Canada, 2014.
Source
Canadian Veterinary Journal; 2016. 57(11):1166-1168. 16 ref.
Publisher
Canadian Veterinary Medical Association
Location of Publisher
Ottawa
Country of Publication
Canada
Abstract
The antimicrobial susceptibility of canine urinary Escherichia coli (n=113) isolated by a regional diagnostic laboratory over a 1-year period was determined. Antimicrobial minimum inhibitory concentrations were determined, and those isolates resistant to beta-lactams were screened for broad-spectrum beta-lactamases. Isolates were unexpectedly susceptible, 79.6% were susceptible to all drugs tested and no extended-spectrum beta-lactamases were identified. Our findings indicate that empiric treatment of canine urinary tract infections with first line drugs such as amoxicillin or trimethoprim+sulfamethoxazole is likely to be successful.
Publication Type
Journal article.

<18>
Accession Number

20173019097
Author
Weese, J. S.
Title
Multidrug-resistant urinary tract infection in a dog.
Source
NAVC Clinician's Brief; 2016. (December):90-94. 16 ref.
Publisher
Educational Concepts LLC
Location of Publisher
Tulsa
Country of Publication
USA
Publication Type
Journal article.

<19>
Accession Number
20173011734
Author
Dufayet, C.
Title
Approach to recurrent urinary tract infections in dogs. (Urologie et nephrologie en pratique chez le chien et le chat) [French]
Source
Point Veterinaire; 2016. 47(Numero Special):90-94. 16 ref.
Publisher
Newsmed
Location of Publisher
Paris
Country of Publication
France
Abstract
STEP 1: Differentiate the different types of recurrent infections. STEP 2: In cases of persistent or recurring infection, re-assess the antibiotic. STEP 3: In cases of reinfection, check for a predisposing cause. STEP 4: Establish a rigorous diagnostic approach. STEP 5: Implement a rational therapeutic approach and bacteriological monitoring. STEP 6: Consider preventive measures.
Publication Type
Journal article.

<20>
Accession Number
20173011733
Author
Dahan, J.
Title
Rational antibiotic therapy in uronephrology. (Urologie et nephrologie en pratique chez le chien et le chat) [French]

Source
Point Veterinaire; 2016. 47(Numero Special):82-88. 24 ref.
Publisher
Newsmed
Location of Publisher
Paris
Country of Publication
France
Abstract
Urinary tract infections occur when there is an abnormality of the animal's urinary tract defence mechanisms. It is essential to follow good practice protocols for the use of antibiotics because of the development of antibiotic resistance. Appropriate antibiotic therapy must be instigated after identification of the pathogen involved by culture of urine followed by antibiotic sensitivity testing. The choice of antibiotic and length of treatment varies depending on the characteristics of the infection (simple or complicated infection, level of infection).
Publication Type
Journal article.

<21>
Accession Number
20173018365
Author
Caney, S.
Title
Maintenance and treatment of feline lower urinary tract disease.
Source
Veterinary Times; 2017. 47(1):12-14. 9 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Abstract
Feline lower urinary tract disease (FLUTD) affects up to 10 per cent of pet cats worldwide and is most often characterised by episodes of cystitis. Affected cats typically pass small amounts of bloody urine, often showing pain and difficulty when doing so. FLUTD can be caused by many conditions, including urolithiasis, bacterial urinary tract infection, bladder neoplasia and idiopathic cystitis. Successful treatment depends on identifying and treating the cause of the problem. However, the majority of affected cats suffer from idiopathic FLUTD, also known as feline idiopathic cystitis (FIC). Management of FIC cases requires a multimodal approach with attention to identifying and addressing sources of stress to the cat, encouraging water intake, good litter tray hygiene and other strategies that will be discussed in this article.
Publication Type
Journal article.

<22>
Accession Number
20173038152

Author
Knutsen, A. M.
Title
Transurethral cystoscopy (TUC) in the diagnosis of lower urinary tract disorders in female dogs and cats. [Norwegian]
Source
Norsk Veterinaertidsskrift; 2016. 128(7):458-464. 14 ref.
Publisher
Den Norske Veterinaerforening
Location of Publisher
Oslo
Country of Publication
Norway
Abstract
Transurethral cystoscopy (TUC) is the only diagnostic tool that enables direct visualization of the urethra and bladder. The procedure is minimally invasive, and the risk of complications is small. Moreover, TUC offers the opportunity to collect mucosal biopsies for culture and histopathology. Indications for cystoscopy include chronic urinary tract infections, haematuria, urinary incontinence and dysuria. TUC can be used to detect anatomical anomalies, tumours, uroliths and obstructions. Signs of urethritis and cystitis such as increased vascularisation and petechial haemorrhage may be visualized, and the source of haematuria can be identified. TUC can also assist removal of uroliths.
Publication Type
Journal article.

<23>
Accession Number
20173096219
Author
Sumner, J. P.; Rishniw, M.
Title
Urethral obstruction in male cats in some Northern United States shows regional seasonality.
Source
Veterinary Journal; 2017. 220:72-74. 9 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Feline lower urinary tract disease (FLUTD) is a term encompassing several different conditions affecting the feline lower urinary tract. Certain FLUTD aetiologies, such as idiopathic cystitis, urethral plugs or urolithiasis, commonly produce urethral obstruction (UO) in male cats. It is widely accepted that environmental, behavioural and dietary factors can play a role in the aetiopathogenesis of these conditions. We investigated the seasonal prevalence of UO by analysing admission dates of 2443 male cats with UO from eight practices in the Northern USA over a 4-year period. A significantly greater number of cats presented for UO in April and May ($P<0.025$). When stratified by geographic location, a spring peak was found in cats from the North-Eastern United States, but no peak was demonstrable in cats from the North-West coast. This suggests that UO might depend, at least in part, on geographical climatic variations.
Publication Type
Journal article.

<24>
Accession Number
20173096213
Author
Nivy, R.; Avital, Y.; Aroch, I.; Segev, G.
Title
Utility of urinary alkaline phosphatase and gamma -glutamyl transpeptidase in diagnosing acute kidney injury in dogs.
Source
Veterinary Journal; 2017. 220:43-47. 42 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
The diagnostic utility of urinary alkaline phosphatase (uALP) and gamma -glutamyl transpeptidase (uGGT) activities in naturally occurring acute kidney injury (AKI) was investigated in a heterogeneous group of dogs. The study included client-owned dogs with AKI (n=32), chronic kidney disease (CKD, n=13), lower urinary tract infection (LUTI, n=15) and healthy controls (n=24). uGGT and uALP activities were normalised to urinary creatinine (uCr) concentrations (uGGT/uCr and uALP/uCr, respectively). uALP/uCr and uGGT/uCr were positively and significantly correlated (r=0.619, P<0.001), and differed significantly (P<=0.001) among groups, as well as between AKI and LUTI or CKD groups (P<0.05), but not between the AKI and control groups. Areas under the receiver operator characteristics (ROC) curve for uALP/uCr and uGGT/uCr as predictors of AKI were 0.75 and 0.65, respectively, with optimal cut-off points showing poor to moderate sensitivity (59% for uALP/uCr and 79% for uGGT/uCr) and specificity (59% for uALP/uCr and 75% for uGGT/uCr). Higher cut-off points, with 90% specificity, showed low sensitivity (41% for both uALP/uCr and uGGT/uCr). In conclusion, uALP/uCr is superior to uGGT/uCr as a marker of AKI, but both uGGT/uCr and uALP/uCr have unsatisfactory discriminatory power for diagnosing naturally occurring AKI in dogs and therefore cannot be recommended as sole screening tests for canine AKI. However, both may serve as ancillary, confirmatory, biomarkers for detecting AKI in dogs if appropriate cut-off points with high specificities are used.
Publication Type
Journal article.

<25>
Accession Number
20173116699
Author
Colakoglu, E. C.; Haydardedeoglu, A. E.; Alhosseni, H.; Hayrl, A.
Title
Efficacy of single-dose ceftriaxone versus multiple-dose enrofloxacin in dogs with uncomplicated lower urinary tract infection: a randomised clinical trial.
Source
Veterinarni Medicina; 2017. 62(3):125-130. 27 ref.
Publisher
Institute of Agricultural Economics and Information

Location of Publisher
Prague
Country of Publication
Czech Republic
Abstract
Dogs with uncomplicated lower urinary tract infection (LUTI) are usually treated with appropriate antibiotics for 10-14 days. In humans, a single dose of ceftriaxone is employed in the treatment of uncomplicated LUTI. The purpose of the current study was to compare the efficacy of a single dose of ceftriaxone with multiple dose (14 days) enrofloxacin administration in dogs with uncomplicated LUTI. Forty-seven non-pregnant client-owned dogs with LUTI signs were enrolled in this prospective, controlled, randomised, blinded clinical trial. The inclusion criteria were the presence of at least one type of bacteria greater than or equal to 1000 CFU/ml in each urine sample. Dogs were assigned randomly to Group ENR (n=23) enrofloxacin treatment (5 mg/kg, s.c., s.i.d., for 14 days) and Group CEF (n=20) ceftriaxone treatment (25 mg/kg, i.v., once). The time needed for disappearance of clinical signs ranged from 4-9 days and 1-5 days for Group ENR and Group CEF, respectively. Clinical signs significantly improved earlier in Group CEF than in Group ENR (P<0.0001). Urine culture with less than or equal to 1000 CFU/ml was achieved on Days 17-21 after the first day of treatment in all dogs. Although a single dose of ceftriaxone can be considered as an alternative treatment to alleviate the signs of uncomplicated LUTI in dogs, its status as drug of last resort is a limiting factor for its extensive use in clinical practice.
Publication Type
Journal article.

<26>
Accession Number
20173171662
Author
Kamiloglu, A.; Klcoglu, D.
Title
Clinical, laboratory, radiographic, ultrasonographic diagnosis and surgical treatment of feline lower urinary tract urolithiasis: study carried out of ten cats.
Source
Ataturk Universitesi Veteriner Bilimleri Dergisi; 2017. 12(1):14-21. 20 ref.
Publisher
Ataturk Universitesi Veteriner Fakultesi Yayinidir
Location of Publisher
Erzurum
Country of Publication
Turkey
Abstract
In this study, it was aimed to present the results of diagnosis and treatment of urinary tract urolithiasis in 10 cats brought to our clinic. Ten cats with urinary tract complaint used for the study. Urolithiasis diagnosis was made through urine analysis, direct and indirect radiography and ultrasonographic findings. Eight cases were applied operative procedure and two cases were administered medical treatment. Accomplishment was gained with chalcolithic diet and infection control along with operative procedure in two of four cats with struvite urolith. Urethrotomy, cystotomy and urohydropropulsion were performed to remove calcium oxalate, calcium carbonate, calcium phosphate and ammonium urate urolith. Pets were postoperatively controlled on the 30th day in order to check whether uroliths were reappeared. In this study, it was found that frequency of uroliths in descending order may be sorted as struvite, calcium oxalate, ammonium urate, calcium carbonate and calcium phosphate. Consequently for the diagnosis of urolithiasis, it is required to evaluate urine pH, crystalluria, hematuria, urine leukocyte values and stone analysis along with the results obtained from direct positive contrast radiography and ultrasonography. Operative approach is indicated for urolith cases and post-operative special diets and medical treatment according to urolith type prevent relapse.

Publication Type
Journal article.

<27>
Accession Number
20173181775
Author
Heilmann, R. M.; McNiel, E. A.; Grutzner, N.; Lanerie, D. J.; Suchodolski, J. S.; Steiner, J. M.
Title
Diagnostic performance of the urinary canine calgranulins in dogs with lower urinary or urogenital tract carcinoma.
Source
BMC Veterinary Research; 2017. 13(112):(21 April 2017). 46 ref.
Publisher
BioMed Central Ltd
Location of Publisher
London
Country of Publication
UK
Abstract
Background: Onset of canine transitional cell carcinoma (TCC) and prostatic carcinoma (PCA) is usually insidious with dogs presenting at an advanced stage of the disease. A biomarker that can facilitate early detection of TCC/PCA and improve patient survival would be useful. S100A8/A9 (calgranulin A/B or calprotectin) and S100A12 (calgranulin C) are expressed by cells of the innate immune system and are associated with several inflammatory disorders. S100A8/A9 is also expressed by epithelial cells after malignant transformation and is involved in the regulation of cell proliferation and metastasis. S100A8/A9 is up-regulated in human PCA and TCC, whereas the results for S100A12 have been ambiguous. Also, the urine S100A8/A9-to-S100A12 ratio (uCalR) may have potential as a marker for canine TCC/PCA. Aim of the study was to evaluate the diagnostic accuracy of the urinary S100/calgranulins to detect TCC/PCA in dogs by using data and urine samples from 164 dogs with TCC/PCA, non-neoplastic urinary tract disease, other neoplasms, or urinary tract infections, and 75 healthy controls (nested case-control study). Urine S100A8/A9 and S100A12 (measured by species-specific radioimmunoassays and normalized against urine specific gravity) [S100A8/A9USG; S100A12USG], urine creatinine concentration, and urine protein concentration and the uCalR were compared among the groups of dogs. Results: S100A8/A9USG had the highest sensitivity (96%) and specificity (66%) to detect TCC/PCA, with specificity reaching 75% after excluding dogs with a urinary tract infection. The uCalR best distinguished dogs with TCC/PCA from dogs with a urinary tract infection (sensitivity: 91%, specificity: 60%). Using a S100A8/A9USG>=109.9 to screen dogs >=6 years of age for TCC/PCA yielded a negative predictive value of 100%. Conclusions: S100A8/A9USG and uCalR may have utility for diagnosing TCC/PCA in dogs, and S100A8/A9USG may be a good screening test for canine TCC/PCA.
Publication Type
Journal article.

<28>
Accession Number
20173154614
Author
Decome, M.

Title
Subclinical bacteriuria in dogs and cats. [French]
Source
Point Veterinaire; 2017. 48(375(Part 1)):44-45. 9 ref.
Publisher
Newsmed
Location of Publisher
Paris
Country of Publication
France
Abstract
This article discusses the prevalence, aetiology, clinical aspects, drug therapy and drug resistance of subclinical bacteriuria affecting the urinary tract especially in obese, female cats than in dogs.
Publication Type
Journal article.

<29>
Accession Number
20163008037
Author
Martiarena, B.; Regonat, M.; Maubecin, E.; Llorente, P.; Albarellos, G.; Castillo, V.; Grana, N.
Title
Teicoplanin: alternative therapy for urinary tract infections by multiresistant Gram-positive bacteria. Report of use in four cats and three dogs. [Spanish]
Source
REDVET; 2015. 16(12):121505. 10 ref.
Publisher
Veterinaria Organizacion S.L.
Location of Publisher
Malaga
Country of Publication
Spain
Abstract
Teicoplanin is a glycopeptide antimicrobial, which acts by inhibiting bacterial cell wall sintesis in a previous step than beta-lactam antibiotics. In exhibit bactericidal action against Gram-positive bacteria, especially for Staphylococci meticillin resistant, Enterococci multiresistant and Coryneacterium urealyticum which are only susceptible to vancomycin and teicoplanin. Publications on teicoplanin use in veterinary practice are not very accurate. This work communicates the successful treatment of seven patients with urinary tract infections caused by multiresistant gram-positive bacteria, 4 cats and 3 dogs, with teicoplanin at a dose rate of 10 mg/kg/day, SC for 10 days. The contribution of this experience will allow teicoplanin as an important alternative to vancomycin, which can only be used by slow intravenous administration every 12 h.
Publication Type
Journal article.

<30>
Accession Number
20163036684
Title

Bacterial urinary tract infections associated with transitional cell carcinoma.
Source
Advances in Small Animal Medicine and Surgery; 2016. 29(1):5-6. 1 ref.
Publisher
Elsevier Inc.
Location of Publisher
Philadelphia
Country of Publication
USA
Publication Type
Journal article.

<31>
Accession Number
20163052267
Author
Jacob, M. E.; Crowell, M. D.; Fauls, M. B.; Griffith, E. H.; Ferris, K. K.
Title
Diagnostic accuracy of a rapid immunoassay for point of-care detection of urinary tract infection in dogs.
Source
American Journal of Veterinary Research; 2016. 77(2):162-166.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
OBJECTIVE: To determine the diagnostic accuracy of a rapid immunoassay (RIA) for point-of-care detection of urinary tract infection (UTI) of dogs, compared with criterion-referenced diagnosis with bacterial culture. SAMPLE: 200 urine samples obtained from dogs and submitted to a veterinary microbiology diagnostic laboratory for routine bacterial culture and antimicrobial susceptibility determination. PROCEDURES: Samples were evaluated by use of quantitative bacterial culture and the RIA. Sensitivity, specificity, and positive and negative predictive values of the RIA were calculated; results of bacterial culture were the criterion-referenced outcome. A kappa statistic was calculated to determine agreement between bacterial culture and RIA results. RESULTS: 56 of 200 (28%) urine samples had positive results for bacterial growth by use of culture methods; there were 38 (19%) positive results likely to be associated with bacterial UTI on the basis of sample collection method and bacterial concentration. Sensitivity and specificity of the RIA for detecting samples likely to be associated with UTI (>=1,000 CFUs/mL) were 97.4% and 98.8%, respectively. The positive and negative predictive values of the RIA for bacterial cultures with likely UTI were 0.949 and 0.994, respectively. Agreement between bacterial culture and RIA outcome for UTI was substantial (weighted kappa , 0.718). CONCLUSIONS AND CLINICAL RELEVANCE: The RIA test evaluated in this study accurately detected UTI of dogs, compared with detection with the criterion-referenced bacterial culture method. Use of this point-of-care RIA could allow clinicians to diagnose UTI at the time of a patient visit and provide information useful for immediately initiating empirical antimicrobial treatment.
Publication Type
Journal article.

<32>
Accession Number
20163042269
Author
Kovarikova, S.; Bilek, M.
Title
Occurrence of bacterial urinary tract infections in dogs with various diseases and symptoms. [Czech]
Source
Veterinarstvi; 2015. 65(12):899-903. 15 ref.
Publisher
Profi Press, s.r.o.
Location of Publisher
Praha 2
Country of Publication
Czech Republic
Abstract
This article presents results of retrospective study dealing with prevalence of urinary tract infection in dogs with different disorders and symptoms. Two hundred and seventy-four dogs were enrolled into this study. In all dogs, urine samples were obtained by cystocentesis. There were 308 urine cultures, 59 (19.2%) out of them were positive (from 54 dogs). In dogs with positive urine culture, average age was 9.0+or-4.2, females were more frequently affected. E. coli was most commonly isolated (57.8%). The highest prevalence of urinary tract infection was observed in dogs with hematuria (37.5%) and urinary tract disorders (31.9%). In dogs with neurologic and respiratory disorders and fever of unknown origin all urine cultures were negative.
Publication Type
Journal article.

<33>
Accession Number
20163081575
Author
Baltazar, F. N.; Altwegg, D.; Conti, J. P.; Tadini, B. S.; Silva, F. G. P. L.; Negrelli, K. L.; Cortez, M. B. X.; Quinzani, M.; Berl, C. A.
Title
Microbiological analysis of urinary tract infections in dogs treated at a veterinary hospital - a nine-year experience (2006-2014). [Portuguese]
Source
Clinica Veterinaria; 2016. 21(120):44-50. 18 ref.
Publisher
Editora Guara
Location of Publisher
Sao Paulo
Country of Publication
Brazil
Abstract
Urinary tract infections, which are usually of bacterial origin, are some of the most common disorders in small animal clinics. Female canines are most frequently affected. This study aimed to characterize epidemiological and microbiological aspects of patients and their isolated urinary pathogens through analysis of 836 urine cultures of 462 dogs collected over a nine-year period (2006-2014). Cultures were segregated according to patient history (single or recurrent urinary tract infections). Results suggest that etiological distribution patterns of canine urinary tract infections change according to development time, and that mongrel dogs between 11 and 15 years old are the most affected.
Publication Type

Journal article.

<34>
Accession Number
20163080960
Author
Howes, C.; Tappin, S.
Title
Canine urinary tract infections.
Source
Companion Animal; 2016. 21(2):100-108. 21 ref.
Publisher
MA Healthcare Limited
Location of Publisher
London
Country of Publication
UK
Abstract
Canine urinary tract infections (UTIs) are commonly seen in small animal practice. The severity of the clinical signs they cause is very variable. Uncomplicated UTIs will resolve with accurate diagnosis and appropriate antimicrobial treatment, however the challenge arises with complicated UTIs that develop secondary to an underlying disease process. These infections often recur unless the underlying disease is identified and managed. This article highlights the importance of a complete and thorough investigation of cases with persistent or recurrent UTIs.
Publication Type
Journal article.

<35>
Accession Number
20163080951
Author
Serra, J. C.; Hill, T.; Lawrence, J.
Title
Canine transitional cell carcinoma: a review of current paradigms.
Source
Companion Animal; 2016. 21(1):21-28. many ref.
Publisher
MA Healthcare Limited
Location of Publisher
London
Country of Publication
UK
Abstract
Transitional cell carcinoma (TCC) is the most common tumour of the canine urinary bladder. It is highly locally invasive and carries a moderate to high risk of metastasis. Clinical signs are typically attributed to the primary disease, and may mimic those of a lower urinary tract infection. The gold standard for definitive diagnosis is histopathology of tissue obtained by traumatic catheterisation, cystoscopy or surgery. Staging includes thoracic and abdominal imaging to aid in the determination of prognosis. Due to the limitations of

local treatment for TCC, medical treatment with systemic chemotherapy and non-steroidal anti-inflammatories remains the mainstay of therapy. Surgery is rarely feasible as the most common location for TCC is the trigone. With the rapid development of interventional radiology in veterinary medicine during the last decade, urethral stents have become a non-invasive and effective approach for relieving partial or complete malignant urinary obstructions, which are common in dogs with advanced TCC.
Publication Type
Journal article.

<36>
Accession Number
20163078318
Author
Park KyungMee; Nam HyunSuk; Hussein, K. H.; Woo HeungMyong
Title
Surgical management of vesicoureteral reflux with recurrent urinary tract infection after renal transplantation in a dog.
Source
Journal of the American Veterinary Medical Association; 2016. 248(3):309-314. 42 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
CASE DESCRIPTION A 3-year-old male Cocker Spaniel renal transplant recipient was readmitted 39 weeks after transplantation because of acute clinical signs of pollakiuria, intermittent vomiting, decreased appetite, lethargy, and mild fever. CLINICAL FINDINGS Hydronephrosis and hydroureter were observed with ultrasonography and contrast cystography, and a diagnosis of vesicoureteral reflux (VUR) was made. Urinary tract infection (UTI) caused by Escherichia coli was also diagnosed on the basis of results of urine culture. TREATMENT AND OUTCOME: Despite treatment of the UTI with an appropriate antimicrobial for 6 weeks, the VUR persisted and the UTI recurred 9 weeks after cessation of antimicrobial treatment. Therefore, surgical correction by means of revision extravesicular ureteroneocytostomy was performed. Both VUR and hydronephrosis resolved after surgery. No recurrences of clinical signs of urinary tract complications were observed during the subsequent 22-month follow-up period. CLINICAL RELEVANCE: Results suggested that ureteral reimplantation with an extravesicular technique incorporating a long submucosal tunnel may be an effective treatment for VUR when medical management fails in canine renal transplant recipients with recurrent UTIs.
Publication Type
Journal article.

<37>
Accession Number
20163087008
Author
Holroyd, K.; Humm, K.
Title
Standards of care for feline urethral catheters in the UK.

Source
Journal of Feline Medicine and Surgery; 2016. 18(2):172-175. 16 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract
Objectives: This study aimed to determine the standards of care for urethral catheters (UCs) placed in male cats for treatment of urethral obstruction (UO). It also assessed whether these standards were influenced by year of graduation of the veterinary surgeon (VS). Methods: One hundred veterinary practices were randomly selected, and a telephone survey was conducted with a VS in the practice. Regarding the last urethral catheterisation performed for a male cat with UO, the VS was asked about the use of antibiotics while the catheter was in situ, whether a closed urinary collection system was used, whether aseptic skin preparation of the patient was performed and whether aseptic hand preparation was performed. A chi 2 test was used to determine whether there were significant differences in these percentages when considering year of graduation. Results: Twenty-seven percent of VSs did not use antibiotics while the urethral catheter was in place, 4% used closed urinary collection systems, 41% performed aseptic skin preparation of the patient and 60% aseptically prepared their hands and wore sterile gloves. There was a statistically significant ($P<0.01$) difference in antibiotic usage, closed collection system usage and aseptic hand preparation across graduation year groups. Conclusions and relevance: Non-sterile urethral catheter placement with open urinary drainage and antibiotic prophylaxis is still a widespread practice among VSs; however, more recent graduates are more likely to perform the procedure aseptically with a closed urinary collection system and withholding of antibiotics. There is a need for further education for postgraduate veterinarians in the prevention of catheter-associated urinary tract infections in cats and further research to provide evidence-based guidelines for feline urethral catheter care.
Publication Type
Journal article.

<38>
Accession Number
20163058668
Author
Silva, C. R. A. da; Silva, F. L.; Sa, E. de; Nunes, M. H. V.; Silva, H. M. O. G. da; Santos, P. V. G. R. dos; Rodrigues, H. W. S.; Oliveira, J. R. de A.; Silva, L. M. O. G. da
Title
Bladder calculus and bilateral nephrolithiasis in dog: a case report. [Portuguese]
Source
PUBVET; 2015. 9(2):76-78. 10 ref.
Publisher
PubVet
Location of Publisher
Maringa
Country of Publication
Brazil
Abstract
Urolithiasis is a disease that affects dogs and cats, as a result of multifactorial processes for their development causing urinary outflow obstruction, presence of urinary tract infection and even evolve to death if the animal if left untreated. The formation of crystals and has as calculation causes a decrease in urinary frequency associated with a change in pH and supersaturation of urine, which may be the dietary factors

involved in the management or even. Nutrition may be related to training, prevention and treatment of urolithiasis.
Publication Type
Journal article.

<39>
Accession Number
20163112629
Author
Wilson, K. E.; Berent, A. C.; Weisse, C. W.
Title
Use of a percutaneously controlled hydraulic occluder for treatment of refractory urinary incontinence in three female cats.
Source
Journal of the American Veterinary Medical Association; 2016. 248(5):544-551. 23 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
CASE DESCRIPTION: 3 cats were referred for evaluation of chronic urinary incontinence. CLINICAL FINDINGS A presumptive diagnosis of urethral sphincter mechanism incompetence (USMI) was made in all 3 cats. Preoperatively, incontinence was mild in 1 cat (incontinence during sleep) and moderate to severe (incontinence while awake and at rest) in 2. Structural abnormalities noted during cystoscopy included urethrovestibular junction stenosis (n=1), vaginal stenosis (1), short urethra (1), and intrapelvic bladder (1). TREATMENT AND OUTCOME: All 3 cats were treated by means of implantation of an inflatable silicone hydraulic occluder (HO) via a ventral midline celiotomy. Immediately prior to HO implantation, patients underwent cystoscopy to detect any anatomic abnormalities and confirm the absence of ureteral ectopia. Following surgery, all 3 patients attained complete continence, needing 0 or 1 inflation of the device. Complications included cystoscopy-associated urethral tear (n=1), constipation (1), stranguria (1), hematuria (2), and urinary tract infection (2). Device explantation was performed 14 weeks after surgery in 1 cat because of postoperative constipation. Constipation persisted and urinary incontinence recurred but was markedly improved following device removal in this cat (leakage of urine only when sleeping at follow-up 29 months after surgery [26 months after device explantation]). At the time of last follow-up, 2 of the 3 cats remained fully continent approximately 3 and 6 years after device implantation. CLINICAL RELEVANCE: Findings suggested that implantation of an HO may be a safe and effective long-term treatment for some cats with USMI. Further studies are necessary to evaluate the potential for treatment-related complications and the long-term outcome.
Publication Type
Journal article.

<40>
Accession Number
20163112625
Author
Wormser, C.; Clarke, D. L.; Aronson, L. R.

Title
Outcomes of ureteral surgery and ureteral stenting in cats: 117 cases (2006-2014).
Source
Journal of the American Veterinary Medical Association; 2016. 248(5):518-525. 35 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
OBJECTIVE: To evaluate and compare outcomes in cats following ureteral surgery or ureteral stent placement. DESIGN Retrospective case series. ANIMALS: 117 cats. PROCEDURES: Data regarding signalment, history, concurrent disease, clinical signs, clinicopathologic tests, surgical procedures, and perioperative complications (including death) were recorded. Follow-up data, including presence of signs of chronic lower urinary tract disease, chronic urinary tract infection, reobstruction, and death, if applicable, were obtained by records review or telephone contact with owners. Variables of interest were compared statistically between cats treated with and without stent placement. Kaplan-Meier analysis and Cox regression were performed to assess differences in survival time between cats with and without ureteral stents. RESULTS: Perioperative complications referable to the urinary tract were identified in 6 of 43 (14%) cats that had >=1 ureteral stent placed and 2 of 74 (3%) cats that underwent ureteral surgery without stenting. Perioperative mortality rates were similar between cats with (4/43 [9%]) and without (6/74 [8%]) stents. After surgery, signs of chronic lower urinary tract disease and chronic urinary tract infection were significantly more common among cats with than cats without stents. Nineteen of 87 (22%) cats with follow-up information available had recurrent obstruction; incidence of reobstruction did not differ between cats with and without stents. Median survival time did not differ between the 2 groups. CONCLUSIONS AND CLINICAL RELEVANCE: The potential for signs of chronic lower urinary tract disease and chronic infection, particularly among cats that receive ureteral stents, warrants appropriate client counseling. Judicious long-term follow-up for detection of reobstruction is recommended.
Publication Type
Journal article.

<41>
Accession Number
20163138194
Author
Ferreira, G. S.; Carvalho, M. B.; Avante, M. L.
Title
Epidemiologic, clinic and laboratorial characteristics of disease cats with lower urinary tract signs. [Portuguese]
Source
Archives of Veterinary Science; 2014. 19(4):42-50. 27 ref.
Publisher
Universidade Federal do Parana, UFPR
Location of Publisher
Palotina
Country of Publication
Brazil
Abstract
Feline idiopathic cystitis (FIC) is the most common cause of feline lower urinary tract disease (FLUTD), whereas bacterial cystitis is diagnosed only in 1% to 3% of the cases. The aim of this study was to evaluate cats with presentation or history of lower urinary tract signs disease (LUTSD), considering epidemiological,

clinical and laboratory aspects. From March 2011 to October 2012, 45 cats presenting LUTSD and five health cats were evaluated regarding to the history, physical examination, abdominal ultrasonography and laboratorial analyses (CBC, urinalysis, clinical chemistry and urine culture). For the 45 cats presenting LUTSD, the diagnosis included non-obstructive FIC, obstructive FIC, and bacterial cystitis. There were no significant differences in the urine specific gravity, pH and quality of the urine sediment between al FLUTD categories. The hematuria was higher in cats with LUTSD, and piuria was associated mainly to bacterial cystitis. Additionally, other findings suggest that features as breed, age, gender, and neutering were not associated with LUTSD presentation in felines.
Publication Type
Journal article.

<42>
Accession Number
20163148444
Author
Meyer, H. P.; Becvarova, I.
Title
Effects of a urinary food supplemented with milk protein hydrolysate and L-tryptophan on feline idiopathic cystitis - results of a case series in ten cats.
Source
International Journal of Applied Research in Veterinary Medicine; 2016. 14(1):59-65. 14 ref.
Publisher
Veterinary Solutions LLC
Location of Publisher
Apopka
Country of Publication
USA
Abstract
Case series summary. The effects of a urinary food supplemented with milk protein hydrolysate and L-tryptophan fed for eight weeks in eighteen household cats with feline idiopathic cystitis (FIC) are described. Cat emotional, quality of life (QOL) and taste perception scores were recorded every fortnight, as were feline lower urinary tract disease (FLUTD) signs. Eight cats did not complete the study due to various reasons (six of which were due to non-food related factors). In the ten cats that completed the study, FLUTD signs, cat emotional and QOL scores improved significantly during the study period. Taste perception of the food was rated excellent throughout the study. Relevance and novel information. FIC is frequently seen in veterinary practice and is difficult to manage. Stress is a known risk factor in the development of FIC. At present, no studies of urinary foods with ingredients known to control anxiety in cats with FIC have been reported. This case series provides provisional evidence that such food improves both FLUTD signs and anxiety-related behaviours in cats with FIC.
Publication Type
Journal article.

<43>
Accession Number
20163172273
Author
Wynn, S. G.; Witzel, A. L.; Bartges, J. W.; Moyers, T. S.; Kirk, C. A.
Title

Prevalence of asymptomatic urinary tract infections in morbidly obese dogs.
Source
PeerJ; 2016. 4(1711):e1711. 24 ref.
Publisher
PeerJ
Location of Publisher
San Francisco
Country of Publication
USA
Abstract
Background. Obesity has reached epidemic proportions in dogs and, as in humans, cost of care has increased due to associated comorbidities. In humans, asymptomatic urinary tract infections (UTI) may be more prevalent in the obese. Asymptomatic bacteriuria (AB) is the term used when UTI are asymptomatic. We hypothesized that morbidly obese dogs are similarly more likely to have asymptomatic bacteriuria than lean, overweight, and moderately obese dogs. Methods. A retrospective study was undertaken to explore a possible association between obesity and asymptomatic bacteriuria. Records from lean, overweight, and obese dogs receiving both a dual energy absorptiometry (DXA) scan and urine culture were included. Results. Six positive urine cultures were identified among 46 dogs fulfilling search criteria. All six positive cultures were found in dogs with body fat percentage of >45%. In dogs with body fat percentage of <45%, there were no positive urine cultures. Discussion. There was an increased prevalence of asymptomatic bacteriuria in the morbidly obese dogs in this study compared to those that were lean, overweight, or moderately obese. Whether antibiotic therapy is necessary in such cases is still being debated, but because asymptomatic bacteriuria may be associated with ascending infections, uroliths, or other complications, the data reported herein support the screening of obese patients for bacteriuria.
Publication Type
Journal article.

<44>
Accession Number
20163136232
Author
Oliveira, L. H. de; Ferreira, A. F.; Tolentino, M. L. D. de L.
Title
Determination of protein/creatinine ratio in urine as early diagnosis of kidney diseases in the Inferior Urinary Tract Disease in cats. [Portuguese]
Source
PUBVET; 2016. 10(5):406-410. 11 ref.
Publisher
Pubvet
Location of Publisher
Maringa
Country of Publication
Brazil
Abstract
A very important disease in Medical Small Animal Clinic is the Inferior Urinary Tract Disease Feline which, if not treated in time, can secondarily lead to kidney complications. In order to detect glomerular injury, veterinary medical use parameters such as urea dosing and plasma creatinine at diagnosis. However, these substances only identify kidney injury when at least 75% of nephrons are functionally compromised; it is not favorable since the early diagnosis is desired. The use of analysis of the protein/creatine urinary ratio is an alternative because through this determination may detect an impaired renal function when only 25% of the parenchyma is affected. This study aimed to evaluate the importance of using determination of protein reason/urinary creatinine in the early diagnosis of renal injury secondary to urinary tract disease Lower

Felines. Were included in this study, 12 cats treated at the Medical Clinic of Small Animal Veterinary Hospital UFCG, campus Ducks diagnosed with Feline Lower Urinary Tract Disease in the period August 2013 to July 2014. The results showed that 66 6% of the cats had values of cause protein/urinary creatinine <0.2 and 33.4% had values between 0.2 and 0.4. This is to say that animals do not develop, so far, no evidence of renal disease. The protein/creatinine urinary ratio can be useful as a diagnostic tool in monitoring these and other cases of cats with Inferior Urinary Tract Disease.
Publication Type
Journal article.

<45>
Accession Number
20163199899
Author
Ackerman, N.
Title
Urinalysis in prevention, monitoring and diagnosis.
Source
The Veterinary Nurse; 2016. 7(2):72-74.
Publisher
MA Healthcare Limited
Location of Publisher
London
Country of Publication
UK
Abstract
Urinary tract issues may result from a number of different aetiologies including infection, neoplasia, urolithiasis, neurological disorders, anatomic abnormalities and inflammatory conditions. The name feline lower urinary tract disease (FLUTD) may not be wholly representative of the condition. The role that stress has on the urinary system is starting to become more fully understood.
Publication Type
Journal article.

<46>
Accession Number
20163235980
Author
Hariharan, H.; Brathwaite-Sylvester, E.; Belmar, V. M.; Ravindra Sharma
Title
Bacterial isolates from urinary tract infection in dogs in Grenada, and their antibiotic susceptibility.
Source
Open Journal of Veterinary Medicine; 2016. 6(6):85-88. 12 ref.
Publisher
Scientific Research Publishing
Location of Publisher
Irvine
Country of Publication
USA
Abstract

Of 52 culture positive urine samples from dogs in Grenada for six years (2004 through 2009) 65.5% of isolates were Gram-negative bacteria, with E. coli as the predominant species, followed by Proteus mirabilis, and Pseudomonas aeruginosa. Other Gram-negative isolates included Klebsiella pneumoniae, Acinetobacter anitratus, and Serratia plymuthica. Among the Gram-positive isolates, Staphylococcus intermedius was the most common species, followed by S. aureus, coagulase-negative staphylococci, and enterococci. Sensitivity results obtained with 6 antibiotics showed least resistance to enrofloxacin, the rate being 19% for all isolates together. More than two-thirds of isolates were resistant to tetracycline. For Gram-positive isolates, resistance to cephalothin was even less than that against enrofloxacin, with a rate of only 13%. Overall resistance to amoxicillin-clavulanic acid was 36%. The most common drug used for treatment of urinary tract infections in Grenada has been amoxicillin-clavulanic acid, followed by enrofloxacin.
Publication Type
Journal article.

<47>
Accession Number
20163241071
Author
Ruidiaz, V.; Martiarena, B.; Molina, E.; Maubecin, E.; Tome, G.; Casellas, J. M.
Title
Urinary tract infection by Oligella ureolytica in a female canine. [Spanish]
Source
REDVET; 2016. 17(6):061602. 13 ref.
Publisher
Veterinaria Organizacion S.L.
Location of Publisher
Malaga
Country of Publication
Spain
Abstract
We report a case of urinary tract infection (UI) by Oligella ureolytica in a female canine. The patient had signs of urinary frequency and hematuria of 3 months duration, with minor periods of spontaneous remission. Several urine studies where performed, which showed an alkaline pH between 7 and 8,5, inflammatory sediment and bacterias. Also the dog had three negative urine cultures, and two studies that do not reflected ultrasound abnormalities. It had not been medicated. Clinical data and urianalysis suggested a presumptive diagnosis of urinary tract infection, misdiagnosed by previous cultures. A new urine culture sent to a microbiology reference laboratory identified oligella ureolytica as the causal agent. There are no reports of bacterial cystitis by this bacteria in veterinary medicine. We provide diagnosis, methodology and treatment with amoxicillin-sulbactam.
Publication Type
Journal article.

<48>
Accession Number
20163238274
Author
Gerrard, E.
Title
FLUTD owner education: how VNs can advise and support.

Source
VN Times; 2016. 16(7):20-22. 8 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<49>
Accession Number
20163271592
Author
Pereira, J. de A.; Bonci, M. M.; Botteon, R. de C. C. M.; Souza, M. M. S. de; Veiga, C. C. P. da; Costa, R. de C. S. da; Pinheiro, A. da C.; Almeida, A. C. de O.
Title
Urinary infection by Morganella morganii in a young dog affected by ectopic ureter. [Portuguese]
Source
Acta Veterinaria Brasilica; 2016. 10(3):273-277. 19 ref.
Publisher
Universidade Federal Rural do Semi-Arido (UFERSA)
Location of Publisher
Mossoro
Country of Publication
Brazil
Abstract
Urinary tract infections (UTI) are frequent diseases in the routine of clinical medicine of companion animals and bacterial cystitis is the most common cause of UTI in dogs and cats. The bad-formations of the urinary tract, as the ectopic ureter, may predispose the affected animals to recurrent urinary infections caused by the same or different pathogens. Morganella morganii is a bacterium with rare isolation from urinary infections in dogs, and it is considered an opportunistic agent in infectious processes, both in pets as in men. This report aimed to describe the clinical diagnosis, as microbiological diagnosis of this infrequent isolation of this microorganism in a young animal carrier of ectopic ureter. Despite of previous treatments of cystitis, the patient had no clinical improvement due to the lack of correction of the baseline cause, or ectopic ureter; which favored recurrent infections. Even being warned about the diseases and its aggravating, the owner left the treatment of the patient, despite the partial clinical improvement with antibiotic therapy according to the susceptibility profile. The results obtained in this case report confirm the importance of culture and sensitivity test for treatment of UTIs; and the search for baseline causes of infectious processes of the urinary tract. Although it's rare isolation, Morganella morganii should be considered as an important causative agent of UTI in animals as in humans, since the anatomical deformities favor the rise of pathogens, especially Gram negative inhabitants of the animals' gastrointestinal tract.
Publication Type
Journal article.

<50>
Accession Number

20163298719
Author
Trevisan, L. F. A.; Sousa, R. V.; Bertolucci, S. K. V.; Rodrigues, O. G.
Title
Alternative treatment in cats affected by FLUTD. [Portuguese]
Source
Arquivo Brasileiro de Medicina Veterinaria e Zootecnia; 2016. 68(4):1099-1103. 12 ref.
Publisher
FEPMVZ - Editora
Location of Publisher
Belo Horizonte
Country of Publication
Brazil
Abstract
This report describes two cases of male cats affected by FLUTD (Feline lower urinary tract disease). The first patient had been affected by numerous relapses after passing through various therapeutic treatments and surgical interventions, and was subjected to the alternative protocol after being recommended for euthanasia, the second patient had no history of urinary tract disorders in the past, and was not subjected to any kind of previous treatment. The two patients had a significant improvement in their clinical condition, were not affected by relapses after participation in the alternative design, and were accompanied for about a year after their treatment.
Publication Type
Journal article.

<51>
Accession Number
20163270808
Author
Yagi, K.
Title
Care for long-stay venous catheters and urinary catheters.
Source
BSAVA Congress 2016 Proceedings, 7-10 April 2016, Birmingham, UK; 2016. :286.
Publisher
British Small Animal Veterinary Association
Location of Publisher
Quedgeley
Country of Publication
UK
Publication Type
Conference paper.

<52>
Accession Number
20163255205
Author
Rutland, B. E.
Title

Bladder matters: the approach & management of chronic cystitis in dogs & cats.
Source
Ontario Veterinary Medical Association Conference Proceedings, 29-31 January 2015, Toronto, Canada; 2015. :198-200. 7 ref.
Publisher
Ontario Veterinary Medical Association (OVMA)
Location of Publisher
Milton
Country of Publication
Canada
Publication Type
Conference paper.

<53>
Accession Number
20163321393
Author
Radlinsky, M.
Title
Ureteral stones: what should I do?
Source
Proceedings of the NAVC Conference, 16-20 January 2016, Orlando, Florida, USA. Volume 30, Small Animal and Exotics; 2016. :1225. 5 ref.
Publisher
North American Veterinary Community (NAVC)
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<54>
Accession Number
20163315404
Author
Palamara, J. D.; Bonczynski, J. J.; Berg, J. M.; Bergman, P. J.
Title
Perioperative cefovecin to reduce the incidence of urinary tract infection in dogs undergoing hemilaminectomy.
Source
Journal of the American Animal Hospital Association; 2016. 52(5):297-304.
Publisher
American Animal Hospital Association
Location of Publisher
Denver
Country of Publication
USA

Abstract
The prevalence of urinary tract infections (UTIs) in dogs with Type I intervertebral disc extrusion has been reported as high as 38% within 6 wk of surgery. Proper treatment of a UTI is important with myelopathy because it is a risk factor for persistent infection and reinfection in dogs. The study authors' investigated the incidence of UTIs in dogs having received either cefovecin or cefazolin as a preoperative prophylactic antibiotic for thoracolumbar hemilaminectomy. Thirty-nine dogs were retrospectively identified and assigned to groups based on preoperative antibiotic administration and postoperative urinary tract management. Urinalysis and urine culture performed preoperatively, at 2 wk, and at 6 wk, were reviewed to determine the incidence of UTIs. Urinary tract management, grade of neurologic deficit, time to ambulation, and time to voluntary urination were identified to evaluate for additional risk factors. No significant prevalence of UTI incidence was appreciated between the cefovecin and cefazolin groups. Patients with higher grades of neurologic deficit and that took longer to regain ambulation and voluntary urination were at significantly greater risk for UTIs throughout the postoperative period. This study reemphasizes the importance of continued surveillance for UTIs in patients with prolonged neurologic recovery.
Publication Type
Journal article.

<55>
Accession Number
20163315081
Author
Palerme, J. S.; Pan PoChing; Parsons, C. T.; Kathariou, S.; Ward, T. J.; Jacob, M. E.
Title
Isolation and characterization of atypical Listeria monocytogenes associated with a canine urinary tract infection.
Source
Journal of Veterinary Diagnostic Investigation; 2016. 28(5):604-607.
Publisher
American Association of Veterinary Laboratory Diagnosticians
Location of Publisher
Davis
Country of Publication
USA
Abstract
Listeria monocytogenes, a well-described cause of encephalitis and abortion in ruminants and of food-borne illness in humans, is rarely associated with disease in companion animals. A case of urinary tract infection associated with an atypical, weakly hemolytic L. monocytogenes strain is described in a diabetic dog. The serotype of the L. monocytogenes isolate was determined to be 1/2a (3a), with the multilocus genotyping pattern 2.72_1/2a. A nucleotide substitution (Gly145Asp) was detected at residue 145 in the promoter prfA region. This residue is within the critical helix-turn-helix motif of PrfA. The source of the L. monocytogenes strain remains unknown, and the dog recovered after a 4-week course of cephalexin (30 mg/kg orally twice daily).
Publication Type
Journal article.

<56>
Accession Number
20163336788

Author
Buranakarl, C.
Title
Proteinuria and urinary protein profiles in kidney diseases.
Source
40th World Small Animal Veterinary Association Congress, Bangkok, Thailand, 15-18 May, 2015. Proceedings book; 2015. :400-401. 5 ref.
Publisher
World Small Animal Veterinary Association
Location of Publisher
Bangkok
Country of Publication
Thailand
Abstract
This article describes the clinical signs, diagnosis and treatment of proteinuria in cats and dogs with kidney diseases.
Publication Type
Conference paper.

<57>
Accession Number
20163331958
Author
Kuan NanLing; Chang ChiaWei; Lee ChienAn; Yeh KuangSheng
Title
Extended-spectrum beta-lactamase-producing Escherichia coli and Klebsiella pneumoniae isolates from the urine of dogs and cats suspected of urinary tract infection in a veterinary teaching hospital.
Source
Taiwan Veterinary Journal; 2016. 42(3):143-148.
Publisher
Chinese Society of Veterinary Science
Location of Publisher
Taipei
Country of Publication
Taiwan
Abstract
Extended-spectrum beta -lactamase (ESBL)-producing microorganisms often cause severe infections; they have only limited therapeutic alternatives and have emerged in both human and veterinary medicine. Companion animals have prolonged contact with humans and could serve as a reservoir for ESBL strains. Information regarding ESBL producers in companion animals is rather limited compared to that regarding humans. Therefore, the objective of this study was to screen for ESBL producers in Escherichia coli, Klebsiella pneumoniae, and Proteus mirabilis in urine samples collected from dogs and cats in which urinary tract infection was suspected in a veterinary teaching hospital in Taipei, Taiwan. In addition, bla genes, multilocus sequence typing (MLST) analysis, and antibiotic susceptibility testing were performed on these ESBL producers. From December 2011 to March 2013, disc tests of cefotaxime and ceftazidime, with and without clavulanic acid, were performed on 60 E. coli, 22 K. pneumoniae, and 18 P. mirabilis samples isolated from urine; 2 E. coli and 5 K. pneumoniae samples with the ESBL phenotype were identified. CTX-M-15 was the most frequently found bla gene. CTX-M-14, SHV-11, SHV-12, and SHV-28 were also identified. MLST analysis did not detect a predominant ST type in either E. coli or K. pneumoniae; nonetheless, K. pneumoniae ST15 and ST11, which are zoonotic agents of public health concern, were detected in our study. All ESBL-producing bacteria exhibited a multidrug-resistant phenotype. The

occurrence of ESBL-producing E. coli and K. pneumoniae in companion animals underscores the importance of ESBL screening and epidemiological study in veterinary hospitals.
Publication Type
Journal article.

<58>
Accession Number
20163339345
Author
Frohlich, L.; Hartmann, K.; Sautter-Louis, C.; Dorsch, R.
Title
Postobstructive diuresis in cats with naturally occurring lower urinary tract obstruction: incidence, severity and association with laboratory parameters on admission.
Source
Journal of Feline Medicine and Surgery; 2016. 18(10):809-817. 54 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract
Objectives: The objectives of this retrospective study were to investigate the actual incidence of postobstructive diuresis after relief of urethral obstruction in cats, as well as to identify changes in blood and urine parameters that might be associated with postobstructive diuresis (POD), and to assess the impact of fluid therapy. Methods: The medical records of 57 male cats with urethral obstruction that were treated with an indwelling urinary catheter were retrospectively analysed. Absolute urine output in ml/kg/h every 4 h and the incidence of cats with polyuria (urine volume >2 ml/kg/h) at any time point over a 48 h period after the re-establishment of urine flow were investigated. In addition, postobstructive diuresis in relation to fluid therapy (PODFR) was defined as urine output greater than the administered amount of intravenous fluids on at least two subsequent time points. Polyuria and PODFR were investigated for their association with blood and urine laboratory parameters. Results: After 4 h, 74.1% (40/54) of the cats had polyuria, with a urine output of >2 ml/kg/h. Metabolic acidosis was present in 46.2% of the cats. Venous blood pH and bicarbonate were inversely correlated with urine output in ml/kg/h after 4 h. The overall incidence of POD within 48 h of catheterisation was 87.7%. There was a significant correlation between intravenous fluid rate at time point x and urine output at time point x+1 at all the time points except for the fluid rate at time point 0 and the urine output after 4 h. PODFR was seen in 21/57 cats (36.8%). Conclusions and relevance: POD is a frequent finding in cats treated for urethral obstruction, and can be very pronounced. Further studies are required to determine whether or not a change in venous blood pH actually interferes with renal concentrating ability. The discrepancy between the frequency of cats with polyuria and PODFR (87.7% vs 36.8%) in the present study indicates that administered intravenous fluid therapy might be the driving force for the high incidence of polyuria in some cats with naturally occurring obstructive feline lower urinary tract disease.
Publication Type
Journal article.

<59>
Accession Number
20163322235

Author
Saftencu, P. M.; Solcan, Gh.
Title
Historical and clinical examination findings in cats with end-stage chronic kidney failure.
Source
Lucrari Stiintifice - Universitatea de Stiinte Agricole a Banatului Timisoara, Medicina Veterinara; 2016. 49(4):107-112. 11 ref.
Publisher
Facultatea de Medicina Veterinara
Location of Publisher
Timisoara
Country of Publication
Romania
Abstract
Background: Chronic kidney disease (CKD) is one of the most common pathologies and leading cause of death in elderly cats. Clinical signs usually become multisystemic as the illness progresses. Objective: The present retrospective study aims to analyze the major clinical findings and the possible contributing factors to the appearance and progression of renal disease. Methods: The clinical records of all feline patients presented at the Faculty of Veterinary Medicine of Iasi were studied. The parameters taken into consideration were: vital signs, mentation, eating and digestive tract disorders, weight loss, type of food and urinary tract infections. All statistical analyses were performed with a statistical software package; using Mann Withney and Ttest paired samples tests, with a significance level at $p<0.05$. Results: From all patients diagnosed with kidney failure, 21 were included in this study. The inclusion criteria was based on complete clinical examination, blood and urine biochemical analyses, and abdominal ultrasound. In terms of severity of the illness 61.9% of the patients were diagnosed with stage IV CKD. The majority of the cats (61.9%) were males, and 60% of the felines from this group were older than 14 years. Conclusion: Chronic kidney disease is a progressive and most of the time irreversible illness, affecting almost one third of the cats over 14 years old. Prevention and early detection is difficult, but the best methods still remain regular physical examination, routine bloodwork and thorough history-taking.
Publication Type
Journal article.

<60>
Accession Number
20163368070
Author
Sorensen, T. M.; Jensen, A. B.; Damborg, P.; Bjornvad, C. R.; Guardabassi, L.; Jessen, L. R.
Title
Evaluation of different sampling methods and criteria for diagnosing canine urinary tract infection by quantitative bacterial culture.
Source
Veterinary Journal; 2016. 216:168-173. 29 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
The use of voided urine specimens for bacteriological culture in dogs is discouraged because contamination from external genitalia could lead to misinterpretation of laboratory results. Quantitative culturing and defining significant bacteriuria could increase the usefulness of voided specimens. However,

limited evidence exists for the cut-offs currently recommended. The aim of this study was to evaluate the accuracy of current veterinary cut-off values for significant bacteriuria in voided canine urine. A secondary aim was to investigate if accuracy improved when applying qualitative criteria used in humans. Paired urine specimens were collected by both cystocentesis and voiding, and quantitative bacteriological cultures were performed within the same day. Cystocentesis was used as the reference standard with a cut-off for significant bacteriuria of >=1000 colony forming units (CFU)/mL. Voided specimens were compared to cystocentesis using: (1) the veterinary cut-off of >=100,000CFU/mL; and (2) various cut-offs depending on qualitative criteria (sex, clinical signs and complicating factors), adapted from human guidelines. Ninety-four dogs with suspected urinary tract infection (UTI) were included for analysis. The veterinary cut-off yielded an accuracy of 94% with a sensitivity and specificity of 94% (95% confidence intervals [CI] 0.81, 0.99) and 94% (95% CI 0.86, 0.98), respectively. Applying the human guidelines did not improve overall accuracy (89%), and yielded a sensitivity and specificity of 97% (95% CI 0.86, 1.00) and 86% (95% CI 0.77, 0.92), respectively. The veterinary cut-off value of >=100,000CFU/mL for voided urine is appropriate for determining significant bacteriuria in the majority of dogs with suspected UTI if specimens are refrigerated and cultured on the day of collection.
Publication Type
Journal article.

<61>
Accession Number
20153008237
Author
Silva, F. M. de F.; Godoi, D. A.; Barreto, T. C. C. S.; Hilst, C. L. S.; Gonzales, J. R. M.; Zanutto, M. de S.
Title
Lower urinary tract infection as cause of abscess and renal microabscesses in feline-case report. [Portuguese]
Source
Veterinaria e Zootecnia; 2014. 21(3):382-386. 11 ref.
Publisher
Faculdade de Medicina Veterinaria e Zootecnia, Universidade Estadual Paulista
Location of Publisher
Botucatu
Country of Publication
Brazil
Abstract
Primary infection of the lower urinary tract in feline is infrequent, however it can occur secondarily after catheterization procedures for urethral obstruction. The aim of this paper is to report a case of abscess and renal microabscesses as result of lower urinary tract infection in a feline eight months old.
Publication Type
Journal article.

<62>
Accession Number
20153007349
Author
Nebbia, P.; Tramuta, C.; Odore, R.; Nucera, D.; Zanatta, R.; Robino, P.
Title

Genetic and phenotypic characterisation of Escherichia coli producing cefotaximase-type extended-spectrum beta -lactamases: first evidence of the ST131 clone in cats with urinary infections in Italy.
Source
Journal of Feline Medicine and Surgery; 2014. 16(12):966-971. 45 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract
The incidence of cefotaximase (CTX-M)-type extended-spectrum beta -lactamase (ESBL)-producing Escherichia coli has increased dramatically in humans and animals since the middle of the last century. E coli that produce CTX-M beta -lactamase represent a major cause of urinary tract infections, and pose a significant therapeutic challenge to both human and veterinary medicine. As data on uropathogenic CTX-M-producing strains in cats are limited, the aim of this study was to describe the genetic character and antibiotic resistance phenotypes of CTX-M-producing E. coli isolated from cats with cystitis. Seven of 15 E. coli bacteria isolated from 138 urine samples had the CTX-M gene and were therefore included in this study. These isolates were screened by polymerase chain reaction for the presence of 14 extra-intestinal virulence factors, class 1 and class 2 integrons, and to identify their phylogenetic groups. Multi-locus sequence typing (MLST) of the strains and susceptibility testing (disc diffusion method) were also performed. Virulence factor iutA was the most frequent determinant identified (86.7%), and the majority of CTX-M-producing strains (n=5) carried class 1 integrons. MLST allowed us to discriminate four known sequence types (ST131, ST555, ST602, ST155) and three novel sequence types (ST3847, ST3848, ST4181). To the best of our knowledge, this is the first study to report uropathogenic CTX-M-producing E. coli ST131 in cats in Italy. Accurate diagnostics and prudent use of antimicrobials are recommended to avoid the spread of multidrug-resistant pathogens in veterinary medicine and to prevent their transmission to humans.
Publication Type
Journal article.

<63>
Accession Number
20153079586
Author
Kuntz, J. A.; Berent, A. C.; Weisse, C. W.; Bagley, D. H.
Title
Double pigtail ureteral stenting and renal pelvic lavage for renal-sparing treatment of obstructive pyonephrosis in dogs: 13 cases (2008-2012).
Source
Journal of the American Veterinary Medical Association; 2015. 246(2):216-225. 31 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
Objective - To describe the technical aspects and clinical outcome of endoscopic- and fluoroscopic-guided ureteropelvic lavage and ureteral stent placement for treatment of obstructive pyonephrosis in dogs. Design - Retrospective case series. Animals - 13 client-owned dogs (14 obstructed ureters). Procedures - All patients with obstructive pyonephrosis were treated with a ureteral stent. Medical records were reviewed for history, clinical signs, pre- and postprocedural clinical and imaging data, and short- and long-term outcomes. Results

- 13 dogs (14 ureters) had unilateral or bilateral ureteral obstructions and pyonephrosis due to ureterolithiasis (n=13) or a suspected ureteral stricture (1). Eleven dogs had positive results of bacteriologic culture of urine obtained from the bladder, renal pelvis, or both. Ten were thrombocytopenic, and 8 were azotemic. Stents were placed fluoroscopically with endoscopic (n=11) or surgical (3) assistance. Median hospitalization time was 48 hours (range, 6 to 260 hours). Median follow-up time was 480 days (range, 2 to 1,460 days). Intraoperative complications occurred in 2 patients (stent occlusion from shearing of a guide wire, and wire penetration of the ureter at the location of a stone). Short-term complications included a bladder hematoma (n=1) and transient dysuria (1). Long-term complications included stent encrustation (n=1), stent migration (1), and tissue proliferation at the ureterovesicular junction (5), which had no clinical implications. Recurrent urinary tract infections were documented in 7 dogs. Conclusions and Clinical Relevance - Ureteral stenting was a successful renal-sparing treatment for obstructive pyonephrosis in dogs and could often be performed in a minimally invasive manner. There were few major complications. This technique may be considered as an effective treatment option for this condition in dogs.
Publication Type
Journal article.

<64>
Accession Number
20153079501
Author
Chang ShaoKuang; Lo DanYuan; Wei HenWei; Kuo HungChih
Title
Antimicrobial resistance of Escherichia coli isolates from canine urinary tract infections.
Source
Journal of Veterinary Medical Science; 2015. 77(1):59-65. 48 ref.
Publisher
Japanese Society of Veterinary Science
Location of Publisher
Tokyo
Country of Publication
Japan
Abstract
This study determined the antimicrobial resistance profiles of Escherichia coli isolates from dogs with a presumptive diagnosis of urinary tract infection (UTI). Urine samples from 201 dogs with UTI diagnosed through clinical examination and urinalysis were processed for isolation of Escherichia coli. Colonies from pure cultures were identified by biochemical reactions (n=114) and were tested for susceptibility to 18 antimicrobials. The two most frequent antimicrobials showing resistance in Urinary E. coli isolates were oxytetracycline and ampicillin. Among the resistant isolates, 17 resistance patterns were observed, with 12 patterns involving multidrug resistance (MDR). Of the 69 tetracycline-resistant E. coli isolates, tet(B) was the predominant resistance determinant and was detected in 50.9% of the isolates, whereas the remaining 25.5% isolates carried the tet(A) determinant. Most ampicillin and/or amoxicillin-resistant E. coli isolates carried blaTEM-1 genes. Class 1 integrons were prevalent (28.9%) and contained previously described gene cassettes that are implicated primarily in resistance to aminoglycosides and trimethoprim (dfrA1, dfrA17-aadA5). Of the 44 quinolone-resistant E. coli isolates, 38 were resistant to nalidixic acid, and 6 were resistant to nalidixic acid, ciprofloxacin and enrofloxacin. Chromosomal point mutations were found in the GyrA (Ser83 Leu) and ParC (Ser80Ile) genes. Furthermore, the aminoglycoside resistance gene aacC2, the chloramphenicol resistant gene cmlA and the florfenicol resistant gene floR were also identified. This study revealed an alarming rate of antimicrobial resistance among E. coli isolates from dogs with UTIs.
Publication Type
Journal article.

<65>
Accession Number
20153076333
Author
Stull, J. W.; Weese, J. S.
Title
Hospital-associated infections in small animal practice. (Special Issue: Infection control.)
Source
Veterinary Clinics of North America, Small Animal Practice; 2015. 45(2):217-233.
Publisher
Saunders, An Imprint of Elsevier
Location of Publisher
Philadelphia
Country of Publication
USA
Abstract
Hospital-associated infections (HAIs) occur in veterinary hospitals of all types and sizes, and their frequency is likely to increase. Urinary tract infections, pneumonia, bloodstream infections, surgical site infections, and infectious diarrhea are the HAIs most frequently identified in veterinary medicine. A hospital infection control program, consisting of an infectious disease control officer, written protocols, and staff training, is critical to reducing HAIs and promoting patient, staff, and client health. Infection control protocols (plans) should include discussion of hand hygiene and use of personal protective equipment, cleaning and disinfection, patient management, with-in hospital surveillance, and antimicrobial stewardship.
Publication Type
Journal article.

<66>
Accession Number
20153099756
Author
Dokuzeylul, B.; Kahraman, B. B.; Bayrakal, A.; Sigirci, B. D.; Celik, B.; Ikiz, S.; Kayar, A.; Erman, O. R. M.
Title
Bacterial species isolated from cats with lower urinary tract infection and their susceptibilities to cefovecin.
Source
Irish Veterinary Journal; 2015. 68(2):(12 February 2015). 16 ref.
Publisher
BioMed Central Ltd
Location of Publisher
London
Country of Publication
UK
Abstract
Background: The aim of this study was to determine the bacterial species recovered from 61 cats with lower urinary tract infection (LUTI), and their susceptibility to cefovecin in vitro. Results: The clinical signs and final clinical diagnosis for cats with confirmed LUTI were also reported. After physical examination of the cats, urine samples including >=5-6 leucocytes in microscopic evaluation were cultured using bacteriological techniques. The isolates were identified by conventional microbiological methods and tested for in vitro susceptibility using the Kirby-Bauer disc diffusion method recommended by the Clinical Laboratory Standards Institute. Bacterial growth was observed in 16 of 61 urine samples. Antimicrobial susceptibility

tests showed that 13 of 16 (81%) isolates were susceptible to cefovecin. The most frequently isolated bacterium from cats with signs of lower urinary tract infection, was Escherichia coli. Conclusion: Cefovecin was found to be effective in cats with LUTI. Because cefovecin is a new antimicrobial agent in veterinary medicine, there are only few studies about urine culture of cats with LUTI. It is the first study on in vitro activity of cefovecin against bacterial isolates from cats with lower urinary infections in Istanbul, Turkey.
Publication Type
Journal article.

<67>
Accession Number
20153065854
Author
Dorsch, R.; Vopelius-Feldt, C. von; Wolf, G.; Straubinger, R. K.; Hartmann, K.
Title
Feline urinary tract pathogens: prevalence of bacterial species and antimicrobial resistance over a 10-year period.
Source
Veterinary Record; 2015. 176(8):201.
Publisher
BMJ Publishing Group
Location of Publisher
London
Country of Publication
UK
Abstract
The purpose of this retrospective study was to identify bacterial species in cats with bacterial urinary tract infections (UTIs) and to investigate their antimicrobial susceptibilities over a 10-year period. Three hundred and thirty cultures from 280 cats were included in the study. The mean age of affected cats was 9.9 years; female cats with bacterial UTIs were significantly older than male cats with UTIs. The most common pathogen identified was Escherichia coli (423 per cent), followed by Streptococcus species (19.3 per cent), Staphylococcus species (15.6 per cent), Enterococcus species (6.6 per cent) and Micrococcaceae (5.8 per cent). Forty specimens (12.1 per cent) yielded growth of more than one isolate. Streptococcus and Enterococcus isolates were resistant to a significantly higher number of antimicrobial agents than E. coli and Staphylococcus species isolates. Applying the formula to select rational antimicrobial therapy, bacterial isolates were most likely to be susceptible to nitrofurantoin, amoxicillin clavulanic acid, enrofloxacin and gentamicin. The antimicrobial impact factor for nitrofurantoin increased significantly over the 10-year period, whereas there was no significant change in antimicrobial impact factors for doxycycline, trimethoprim-sulfamethoxazole, gentamicin, enrofloxacin, cephalothin and amoxicillin clavulanic acid. The detected changes in in vitro antimicrobial efficacy could help to develop hospital-specific guidelines for antimicrobial use to prevent the further development of resistance in feline uropathogens.
Publication Type
Journal article.

<68>
Accession Number
20153057231
Author
Westropp, J. L.

Title
New thoughts on treatment of canine urinary tract infections.
Source
2013 Ontario Veterinary Medical Association Conference Proceedings. January 24-26, 2013, Toronto, Canada; 2013. :96-98.
Publisher
Ontario Veterinary Medical Association (OVMA)
Location of Publisher
Milton
Country of Publication
Canada
Publication Type
Conference paper.

<69>
Accession Number
20153085299
Author
Caney, S.
Title
Review of treatments for kidney disease in felines.
Source
Veterinary Times; 2015. 45(10):28, 30. 5 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<70>
Accession Number
20153153337
Author
Jessen, L. R.; Sorensen, T. M.; Bjornvad, C. R.; Nielsen, S. S.; Guardabassi, L.
Title
Effect of antibiotic treatment in canine and feline urinary tract infections: a systematic review.
Source
Veterinary Journal; 2015. 203(3):270-277. 29 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract

Urinary tract infection (UTI) is a major reason for antibiotic prescription in small animal practice. Optimal antibiotic treatment strategies have not been established for veterinary species, especially when considering duration of treatment, which is often considerably longer than for human patients with UTI. The aims of this study were (1) to identify and assess evidence related to the efficacy of antibiotic treatment in canine and feline UTIs; and (2) to compare the efficacy of short (<5 days) and standard (>=7 days) duration of antibiotic treatment for canine uncomplicated UTI. An electronic literature search was conducted for publications to 1 May 2014. Fourteen peer-reviewed prospective and controlled studies were retrieved, 10 of which evaluated antibiotic treatment in dogs and four in cats. Of the 14 studies, seven were clinical trials and five of those were randomised controlled trials. Most (12/14) studies were not considered to contribute sufficient evidence to evaluate treatment strategies. There were no clinical studies examining the effect of duration of the same drug. Of the short duration regimens evaluated, the efficacy of 3 day antibiotic therapy with trimethoprim-sulphonamide (females only) or high-dose enrofloxacin in dogs with uncomplicated UTIs was supported by fair evidence, as these treatment strategies were non-inferior to medium duration (10-14 days) therapy with beta -lactam antimicrobials. In conclusion, there is little published evidence relating to antibiotic treatment of UTIs in dogs and cats. Well-designed clinical trials focusing on the duration of treatment are warranted to create evidence-based treatment protocols.
Publication Type
Journal article.

<71>
Accession Number
20153192739
Author
Raditic, D. M.
Title
Complementary and integrative therapies for lower urinary tract diseases. (Special Issue: Urology.)
Source
Veterinary Clinics of North America, Small Animal Practice; 2015. 45(4):857-878.
Publisher
Saunders, An Imprint of Elsevier
Location of Publisher
Philadelphia
Country of Publication
USA
Abstract
Consumer use of integrative health care is growing, but evidence-based research on its efficacy is limited. Research of veterinary lower urinary tract diseases could be translated to human medicine because veterinary patients are valuable translational models for human urinary tract infection and urolithiasis. An overview of complementary therapies for lower urinary tract disease includes cranberry supplements, mannose, oral probiotics, acupuncture, methionine, herbs, or herbal preparations. Therapies evaluated in dogs and cats, in vitro canine cells, and other relevant species, in vivo and in vitro, are presented for their potential use as integrative therapies for veterinary patients and/or translational research.
Publication Type
Journal article.

<72>
Accession Number
20153192733

Author
Olin, S. J.; Bartges, J. W.
Title
Urinary tract infections: treatment/comparative therapeutics. (Special Issue: Urology.)
Source
Veterinary Clinics of North America, Small Animal Practice; 2015. 45(4):721-746.
Publisher
Saunders, An Imprint of Elsevier
Location of Publisher
Philadelphia
Country of Publication
USA
Abstract
Urinary tract infection (UTI) occurs when there is compromise of host defense mechanisms and a virulent microbe adheres, multiplies, and persists in a portion of the urinary tract. Most commonly, UTI is caused by bacteria, but fungi and viruses are possible. Urine culture and sensitivity are the gold standards for diagnosis of bacterial UTI. Identifying the location of infection (eg, bladder, kidney, prostate) as well as comorbidities (eg, diabetes mellitus, immunosuppression) is essential to guide the diagnostic and therapeutic plan. Antimicrobial agents are the mainstay of therapy for bacterial UTI and selected ideally based on culture and sensitivity.
Publication Type
Journal article.

<73>
Accession Number
20153192728
Author
Bartges, J. W.
Title
Special Issue: Urology. (Special Issue: Urology.)
Source
Veterinary Clinics of North America, Small Animal Practice; 2015. 45(4):i-ix + 621-878.
Publisher
Saunders, An Imprint of Elsevier
Location of Publisher
Philadelphia
Country of Publication
USA
Abstract
This special issue contains articles on the aetiology, clinical signs, diagnosis and treatment of urinary tract diseases in cats and dogs.
Publication Type
Journal issue.

<74>
Accession Number
20153205935
Author

Hall, K.
Title
Update on managing feline lower urinary tract disease.
Source
VN Times; 2015. 15(6):10...14. 10 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Abstract
Feline lower urinary tract disease is commonly seen in practice. Patients may show chronic clinical signs or present to the clinic with acute urethral obstruction and require immediate, lifesaving medical interventions. The RVN plays a vital role in assisting with the emergency case, but also in advising cat owners on multimodal environmental modifications, which can play a role in decreasing the recurrence.
Publication Type
Journal article.

<75>
Accession Number
20153198762
Author
Caney, S.
Title
Idiopathic cystitis in cats: treatment and management.
Source
Veterinary Times; 2015. 45(22):20-21. 15 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<76>
Accession Number
20153170739
Author
Chew, D. J.
Title
Uncomplicated urinary tract infection in dogs: diagnosis and treatment.
Source
Proceedings of the NAVC Conference, 17-21 January 2015, Orlando, Florida, USA. Volume 29, Small animal and exotics edition, Book 1 & Book 2; 2015. :511-514. 13 ref.
Publisher

North American Veterinary Community (NAVC)
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<77>
Accession Number
20153239030
Author
Luckschander-Zeller, N.; Tichy, A.; Hirt, R. A.; Angerer-Thalhammer, M.; Wardell, V.
Title
Predisposing factors for obstructive Feline Lower Urinary Tract Disease (FLUTD) in an Austrian male cat population: a retrospective study. [German]
Source
Wiener Tierarztliche Monatsschrift; 2015. 102(5/6):112-117. 23 ref.
Publisher
Fairdrucker GmbH
Location of Publisher
Purkersdorf
Country of Publication
Austria
Abstract
Introduction: Idiopathic cystitis or urethral plugs are described as common underlying diseases of obstructive Feline Lower Urinary Tract Disease (FLUTD) in male cats. The aim of this study was to identify risk factors for FLUTD in a defined population of Austrian male cats. Materials and methods: The patient group consisted of 14 male cats hospitalized due to obstructive FLUTD at the University of Veterinary Medicine Vienna 2008-2010 and diagnosed with idiopathic cystitis or urethral plugs. Minimal data base included findings of clinical examination, urine sediment, abdominal radiograph and/or ultrasound. The control group consisted of 40 male cats hospitalized during the same time period without a history or clinical signs consistent with FLUTD. The two groups were compared retrospectively with regard to signalment, number of cats in the household, available litter boxes in the household, indoor or outdoor husbandry and diet (dry vs. wet food). Seasonal occurrence of the disease was examined. Results: Body weight was significantly higher (p<0.001) in the FLUTD group, which consisted of significantly more neutered male cats (p=0.04). A body weight of >5 kg (OR=13.3; 95% CI: 9.8; 21.3) and neutering (OR=4.8; 95% CI: 2.2; 8.4) were found to be significant risk factors for FLUTD. In both groups the number of toilets in the household was found to be smaller than recommended (p<0.001). There was no significant difference in husbandry (p=0.35), age (p=0.51), breed (p=0.8), diet (0.75) and number of litter boxes in the household (p=0.07) and also no seasonal occurrence (p=0.37). Conclusion: The identified risk factors (increased body weight and neutering) are in accordance with the results of larger international studies. Knowledge about these risk factors can be used to prevent the occurrence of FLUTD.
Publication Type
Journal article.

<78>
Accession Number

20153256354
Author
Nevins, J. R.; Mai, W.; Thomas, E.
Title
Associations between ultrasound and clinical findings in 87 cats with urethral obstruction.
Source
Veterinary Radiology & Ultrasound; 2015. 56(4):439-447. 33 ref.
Publisher
Wiley-Blackwell
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Urethral obstruction is a life-threatening form of feline lower urinary tract disease. Ultrasonographic risk factors for reobstruction have not been previously reported. Purposes of this retrospective cross-sectional study were to describe urinary tract ultrasound findings in cats following acute urethral obstruction and determine whether ultrasound findings were associated with reobstruction. Inclusion criteria were a physical examination and history consistent with urethral obstruction, an abdominal ultrasound including a full evaluation of the urinary system within 24 h of hospitalization, and no cystocentesis prior to ultrasound examination. Medical records for included cats were reviewed and presence of azotemia, hyperkalemia, positive urine culture, and duration of hospitalization were recorded. For medically treated cats with available outcome data, presence of reobstruction was also recorded. Ultrasound images were reviewed and urinary tract characteristics were recorded. A total of 87 cats met inclusion criteria. Common ultrasound findings for the bladder included echogenic urine sediment, bladder wall thickening, pericystic effusion, hyperechoic pericystic fat, and increased urinary echoes; and for the kidneys/ureters included pyelectasia, renomegaly, perirenal effusion, hyperechoic perirenal fat, and ureteral dilation. Six-month postdischarge outcomes were available for 61 medically treated cats and 21 of these cats had reobstruction. No findings were associated with an increased risk of reobstruction. Ultrasonographic perirenal effusion was associated with severe hyperkalemia (P=0.009, relative risk 5.75, 95% confidence interval [1.54-21.51]). Findings supported the use of ultrasound as an adjunct for treatment planning in cats presented with urethral obstruction but not as a method for predicting risk of reobstruction.
Publication Type
Journal article.

<79>
Accession Number
20153247901
Author
Brashear, M.
Title
Initial management of the FLUTD patient.
Source
BSAVA Congress 2015: Scientific Proceedings, Birmingham, UK, 9-12 April 2015; 2015. :301.
Publisher
British Small Animal Veterinary Association
Location of Publisher
Quedgeley
Country of Publication
UK
Publication Type
Conference paper.

<80>
Accession Number
20153247689
Author
Quimby, J. M.
Title
Urinary tract infections: when they get complicated and how to beat them.
Source
BSAVA Congress 2015: Scientific Proceedings, Birmingham, UK, 9-12 April 2015; 2015. :54-55.
Publisher
British Small Animal Veterinary Association
Location of Publisher
Quedgeley
Country of Publication
UK
Publication Type
Conference paper.

<81>
Accession Number
20153213456
Author
Nebbia, P.; Odore, R.; Tramuta, C.; Malabaila, A.; Robino, P.
Title
Prevalence of multidrug resistance in canine and human uropathogen E. coli isolates. [Italian]
Source
Veterinaria (Cremona); 2015. 29(1):51-55. 25 ref.
Publisher
Edizioni SCIVAC
Location of Publisher
Cremona
Country of Publication
Italy
Abstract
Treatment of urinary infections caused by E. coli has become increasingly problematic due to the emergence and spread of multidrugresistant strains. A retrospective study was carried out to evaluate antibiotic resistance patterns of E. coli isolated from urine samples of dogs and humans.
Publication Type
Journal article.

<82>
Accession Number
20153309627

Author
Hutchins, R.
Title
Medical management of recurrent urinary tract infection.
Source
NAVC Clinician's Brief; 2015. (August):unpaginated. 7 ref.
Publisher
Educational Concepts LLC
Location of Publisher
Tulsa
Country of Publication
USA
Publication Type
Journal article.

<83>
Accession Number
20153321696
Author
Lund, H. S.; Skogtun, G.; Sorum, H.; Eggertsdottir, A. V.
Title
Absence of bacterial DNA in culture-negative urine from cats with and without lower urinary tract disease.
Source
Journal of Feline Medicine and Surgery; 2015. 17(10):909-914. 30 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract
A diagnosis of bacterial cystitis commonly relies on a positive microbiological culture demonstrating the presence of a significant number of colony-forming units/ml urine, as urine within the upper urinary tract, bladder and proximal urethra generally is considered sterile. Recent studies from human and veterinary medicine indicate the presence of non-culturable bacteria in culture-negative urine samples. The aim of the present study was to determine the occurrence of bacterial DNA in culture-negative urine samples from cats with signs of feline lower urinary tract disease (FLUTD) and healthy control cats by 16 S ribosomal DNA PCR and subsequent sequencing. The study sample included 38 culture-negative urine samples from cats with FLUTD and 43 culture-negative samples from control cats. Eight culture-positive urine samples from cats with FLUTD were included as external positive controls in addition to negative reaction controls. Of possible methodological limitations, degradation of DNA due to storage, the use of non-sedimented urine for DNA isolation and lack of internal positive reaction controls should be mentioned. The positive controls were recognised, but occurrence of bacterial DNA in culture-negative urine from cats with or without signs of lower urinary tract disease was not demonstrated. However, considering the possible methodological limitations, the presence of bacterial DNA in the urine of culture-negative FLUTD cats cannot be excluded based on the present results alone. Therefore, a prospective study reducing the possibility of degradation of DNA due to storage, in combination with modifications enhancing the chance of detecting even lower levels of bacterial DNA in culture-negative samples, seems warranted.
Publication Type
Journal article.

<84>
Accession Number
20153305977
Author
Kucera, J.
Title
Urinary tract infections with urolithiasis in dogs. [Czech]
Source
Veterinarstvi; 2015. 65(8):583-586. 17 ref.
Publisher
Profi Press, s.r.o.
Location of Publisher
Praha 2
Country of Publication
Czech Republic
Abstract
Hundred of canine patients with urolithiasis was assessed by mineralogical analysis of concrements and/or urine culture. Uroinfects occurred in a total of 39% bacteriologic examined dogs with lithiasis. From the mineralogical aspects were uroinfects identified in 100% dogs with struvite lithiasis, in 12% dogs with calciumoxalate lithiasis, and 14% dogs with cystine lithiasis. Most commonly found uropathogens were staphylococci, to the second most frequent findings belonged enterococci. In the discussion were the observed results compared with foreign knowledge.
Publication Type
Journal article.

<85>
Accession Number
20153337535
Author
Jesus, A. C. de; Souza, H. J. M. de; Gheren, M. W.; Silva, C. A. da
Title
Urinary tract infection in cats with chronic kidney disease. [Portuguese]
Source
Clinica Veterinaria; 2015. 20(117):70-76. 30 ref.
Publisher
Editora Guara
Location of Publisher
Sao Paulo
Country of Publication
Brazil
Abstract
Chronic kidney disease (CKD) and urinary tract infection (UTI) are among the most commonly encountered and often correlated disorders in small animal medicine. The development of UTI depends on an imbalance between the infecting organism and the host defense mechanisms. Nowadays, it is well established that the frequency of pathogens and resistance patterns can vary significantly not only from country to country, but also in different veterinary hospitals within the same country. Therefore, monitoring and identification of microorganism prevalence patterns are essential as preventive measures against infections. The aim of this study was to verify the frequency of UTI in cats with CKD, as well as to identify the bacterial species isolated from these animals and their antimicrobial susceptibility.

Publication Type
Journal article.

<86>
Accession Number
20153357990
Author
Fauth, E.; Freeman, L. M.; Cornjeo, L.; Markovich, J. E.; Janecko, N.; Weese, J. S.
Title
Salmonella bacteriuria in a cat fed a Salmonella-contaminated diet.
Source
Journal of the American Veterinary Medical Association; 2015. 247(5):525-530. 47 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
Case Description - A 9-year-old castrated male domestic shorthair cat was evaluated because of hematuria and weight loss after an 8-year history of intermittent signs of feline lower urinary tract disease (FLUTD). A complete diet history revealed that the cat was eating a commercial diet that does not undergo the same processing procedures as most pet foods and so might be at increased risk for bacterial contamination owing to a nonstandard industry cooking procedure. Clinical Findings - The cat had a history consistent with FLUTD, but bacteriologic culture of the urine revealed Salmonella organisms. Additional analysis revealed Salmonella enterica serotype I:ROUGH-O:g,m,s:- in samples of urine and feces as well as Salmonella enterica serotype Johannesburg and Salmonella enterica serotype Senftenberg in the diet. Treatment and Outcome - The cat responded positively to antimicrobial treatment for the Salmonella bacteriuria as well as to dietary and environmental management for the clinical signs associated with FLUTD. Clinical Relevance - Findings in this case highlighted an additional health consequence associated with ingestion of Salmonella-contaminated food. Such contamination is of particular concern with raw meat-based diets or diets that have not undergone standard industry cooking practices. Veterinarians should obtain a diet history for every companion animal during every evaluation to help with diagnosis and optimal treatment.
Publication Type
Journal article.

<87>
Accession Number
20153356273
Author
Raghav Sharma; Mahajan, S. K.; Mohindroo, J.; Singh, N.; Saini, N. S.; Sood, N. K.
Title
Studies on diagnostic and therapeutic options in dogs suffering from benign prostatic hyperplasia.
Source
Indian Journal of Veterinary Surgery; 2015. 36(1):9-13. 19 ref.
Publisher
Indian Society for Veterinary Surgery
Location of Publisher

Hisar
Country of Publication
India
Abstract
The study was conducted on 10 dogs presented with prostate involvement with an aim to determine effective diagnostic and therapeutic options for managing benign prostatic hyperplasia (BPH). The disease was more common in middle to old aged dogs. Urinalysis revealed normal or concurrent urinary tract infection. Elevated activity of serum alkaline phosphatase was seen. Culture of prostatic fluid revealed no bacterial growth. Objective radiographic and ultrasonographic assessment was found superior to conventional subjective assessment. Ultrasound-guided fine-needle aspiration biopsy using free hand technique obtained good quality prostatic tissue sample for confirmatory diagnosis. The BPH cases were grouped under 3 groups that received either Finasteride (@ 5 mg total dose for 6 weeks), Dutasteride (@ 0.5 mg total dose for 6 weeks) or underwent castration. Treatment with finasteride, dutasteride or castration produced similar and comparable results in the form of prostatic volume reduction and alleviation of clinical signs. Both drugs did not produce any deleterious effect on vital organ functions and were found safe in dogs.
Publication Type
Journal article.

<88>
Accession Number
20153340086
Author
Morar, D.; Ciulan, V.; Simiz, F.; Petruse, C.; Ciuperca, M. A.; Mot, T.
Title
Clinical and epidemiological study in cats with idiopathic cystitis.
Source
Lucrari Stiintifice - Universitatea de Stiinte Agricole a Banatului Timisoara, Medicina Veterinara; 2015. 48(4):107-111. 10 ref.
Publisher
Facultatea de Medicina Veterinara
Location of Publisher
Timisoara
Country of Publication
Romania
Abstract
Feline idiopathic cystitis (FIC) is the most frequent cause of feline lower urinary tract disease. The purpose of this retrospective study was to investigate the factors related to environmental changes and the clinical abnormalities in cats with idiopathic cystitis. In this study were included forty-five cats that were classified as having idiopathic cystitis after exclusion of other possible causes of lower urinary tract disease. Of seventy-one cats with signs of lower urinary tract disease, 63.3% (45) were diagnosed with FIC. The disease was diagnosed more frequently in cats aged less than 10 years (87%) and in those fed with dry food (62%) or a combination of dry and wet food (26%). The most common environmental changes associated with the occurrence of acute episodes of idiopathic cystitis were: departure or death of human family member (27%); new human or new pet in the household (36%); new house or rearranging of the house (26%). The obstructive form was seen in 22% of the cases with FIC. All obstructive forms of FIC were diagnosed in male cats. Haematuria, pollakiuria, and periuria were the most common clinical signs and have been seen in 93%, 91% and 84% of cases, respectively.
Publication Type
Journal article.

<89>
Accession Number
20153392596
Author
Weeden, A. L.; Wamsley, H. L.
Title
Cytology Challenge: Unusual sediment findings. (Special issue: Emergency medicine)
Source
NAVC Clinician's Brief; 2015. (October):99-105. 7 ref.
Publisher
Educational Concepts LLC
Location of Publisher
Tulsa
Country of Publication
USA
Publication Type
Journal article.

<90>
Accession Number
20153386950
Author
Guardabassi, L.; Hedberg, S.; Jessen, L. R.; Damborg, P.
Title
Optimization and evaluation of FlexicultReg. Vet for detection, identification and antimicrobial susceptibility testing of bacterial uropathogens in small animal veterinary practice.
Source
Acta Veterinaria Scandinavica; 2015. 57(72):(26 October 2015). 17 ref.
Publisher
BioMed Central Ltd
Location of Publisher
London
Country of Publication
UK
Abstract
Background: Urinary tract infection (UTI) is a common reason for antimicrobial prescription in dogs and cats. The objective of this study was to optimize and evaluate a culture-based point-of-care test for detection, identification and antimicrobial susceptibility testing of bacterial uro-pathogens in veterinary practice. Methods: Seventy-two urine samples from dogs and cats with suspected UTI presenting to seven veterinary facilities were used by clinical staff and an investigator to estimate sensitivity and specificity of Flexicult Vet A compared to laboratory reference standards for culture and susceptibility testing. Subsequently, the test was modified by inclusion of an oxacillin-containing compartment for detection of methicillin-resistant staphylococci. The performance of the modified product (Flexicult Vet B) for susceptibility testing was evaluated in vitro using a collection of 110 clinical isolates. Results: Bacteriuria was reported by the laboratory in 25 (35%) samples from the field study. The sensitivity and specificity of Flexicult Vet A for detection of bacteriuria were 83 and 100%, respectively. Bacterial species were correctly identified in 53 and 100% of the positive samples by clinical staff and the investigator, respectively. The susceptibility results were interpreted correctly by clinical staff for 70% of the 94 drug-strain combinations. Higher percentages of correct interpretation were observed when the results were interpreted by the investigator in both the field

(76%) and the in vitro study (94%). The most frequent errors were false resistance to beta -lactams (ampicillin, amoxicillin-clavulanate and cephalotin) in Escherichia coli for Flexicult Vet A, and false amoxicillin-clavulanate resistance in E. coli and false ampicillin susceptibility in Staphylococcus pseudintermedius for Flexicult Vet B. The latter error can be prevented by categorizing staphylococcal strains growing in the oxacillin compartment as resistant to all beta -lactams. Conclusions: Despite the shortcomings regarding species identification by clinical staff and beta -lactam susceptibility testing of E. coli, Flexicult Vet B (commercial name FlexicultReg. Vet) is a time- and cost-effective point-of-care test to guide antimicrobial choice and facilitate implementation of antimicrobial use guidelines for treatment of UTIs in small animals, provided that clinical staff is adequately trained to interpret the results and that clinics meet minimum standards to operate in-house culture.
Publication Type
Journal article.

<91>
Accession Number
20153420897
Author
Robertson, E.
Title
Feline cystitis: a case presenting with LUTS in a young female cat.
Source
Companion Animal; 2014. 19(6):284-287. 17 ref.
Publisher
MA Healthcare Limited
Location of Publisher
London
Country of Publication
UK
Abstract
Feline lower urinary tract disease (FLUTD) is a term often given to cats exhibiting certain clinical signs, including straining to urinate, haematuria, pollakiuria, and periuria. Although periuria (urinating inappropriately around the house) is the clinical sign that most often initiates the visit to a veterinarian, the clinician must differentiate cats with lower urinary tract signs (LUTS) indicative of underlying disease from those with behavioural issues. Despite extensive diagnostics, at least 70% of cats presenting with LUTS will have no identifiable cause (e.g. urinary stones, urinary tract infection), and are thus categorised as having feline idiopathic cystitis.
Publication Type
Journal article.

<92>
Accession Number
20153442036
Author
Saftencu, P. M.; Cozma, A. P.; Ciocan, O. A.; Pasca, S.; Solcan, G.
Title
Urinary infection produced by ESBL-positive Escherichia coli in male cats. Case report.
Source

Lucrari Stiintifice - Medicina Veterinara, Universitatea de Stiinte Agricole si Medicina Veterinara "Ion Ionescu de la Brad" Iasi; 2015. 58(2):385-390. 9 ref.
Publisher
Universitatea de Stiinte Agricole si Medicina Veterinara "Ion Ionescu de la Brad" Iasi
Location of Publisher
Iasi
Country of Publication
Romania
Abstract
Infections with Extended-Spectrum betaLactamase-positive microorganism can be serious and life threatening giving to the fact that they are very antibioresistant. The most common germs with this kind of drug resistance are E. coli and Klebsiella ssp. This study followed not only the clinical side effects of ESBL-positive E. coli cystitis, but also the possibility of spreading this germ to people and other inhabiting pets. Two Domestic Shorthair male cat was presented at the Internal Medicine Clinic of the Faculty of Veterinary Medicine Iasi, with recurrent cystitis. Urine was collected through sterile catheterization for culture, macroscopic, microscopic and cytological examination. The direct bacteriological examination revealed the presence of Gram negative bacteria. Cultivation of the urinary sediment on selective media and then on Oxoid Briliance ESBL medium, used on the screening of ESBL producing microorganism and the phenotypic confirmation using the combined disc method, revealed a multidrug resistance of the E. coli strain. Furthermore stool samples were analyzed from the inhabiting cat and the owners of the first patient, and revealed the presence of ESBL-positive E. coli in the cat, while the owner's samples were negative. ESBL-positive Enterobacteriaceae and the pathways of transmission between pets and owners and vice versa, represent a subject of interest for upcoming microbiological research.
Publication Type
Journal article.

<93>
Accession Number
20133411371
Author
Garcia Roldan, L. M.; Barcena Diaz, M.
Title
Main pathologies of the feline lower urinary tract. [Spanish]
Source
Argos - Informativo Veterinario; 2013. (153):42, 44, 46. 6 ref.
Publisher
ASIS Biomedia s.l.
Location of Publisher
Zaragoza
Country of Publication
Spain
Abstract
This article gives an overview of the most common lower urinary tract diseases in cats. Focus is given on aetiology, risk factors, diagnosis and therapy (drug therapy, surgery and diet modification). The diseases discussed include urinary tract infections, urolithiasis (struvite and calcium oxalate), urethral plugs, obstructive uropathy and feline idiopathic cystitis.
Publication Type
Journal article.

<94>
Accession Number
20133418059
Author
Sturgess, C.
Title
Closer observations of renal disease in canines and felines.
Source
Veterinary Times; 2013. 43(50):8-9. 5 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<95>
Accession Number
20133417901
Author
Hall, J. L.; Holmes, M. A.; Baines, S. J.
Title
Prevalence and antimicrobial resistance of canine urinary tract pathogens.
Source
Veterinary Record; 2013. 173(22):549.
Publisher
BMJ Publishing Group
Location of Publisher
London
Country of Publication
UK
Abstract
This study aims to describe the incidence and risk factors for positive urinary tract culture, the prevalence of urinary tract pathogens in single organism and mixed cultures and changes in their antimicrobial resistance over 10 years. A retrospective review of computer records detailing canine urine samples submitted between August 1999 and September 2009 for culture and sensitivity in a UK tertiary referral hospital is described. 17.5 per cent of 5923 samples (670 of 4530 dogs) were positive cultures. 85.3 per cent of cultures yielded a single isolate. The prevalence of bacterial species differed between mixed and single isolate cultures. Entire and neutered female dogs were more likely to return positive cultures than male dogs (OR=2.5 and 1.5, respectively). Escherichia coli was most commonly isolated (53.9 per cent) and affected female dogs, older dogs and neutered dogs more. There was an increase in the antimicrobial resistance of Enterococcus faecalis and Pseudomonas Aeruginosa, and a decrease in the effectiveness of enrofloxacin, cephalexin and oxytetracycline. The prevalence of urinary bacterial isolates is described for a large group of dogs. Monitoring changes in antimicrobial efficacy and microbial resistance guides the empirical use of antimicrobials for the treatment of urinary tract infection and helps formulate strategic plans to limit drug resistance.
Publication Type
Journal article.

<96>
Accession Number
20143017977
Author
Daure, E.; Belanger, M. C.; Beauchamp, G.; Lapointe, C.
Title
Elevation of neutrophil gelatinase-associated lipocalin (NGAL) in non-azotemic dogs with urinary tract infection.
Source
Research in Veterinary Science; 2013. 95(3):1181-1185. 41 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Neutrophil gelatinase-associated lipocalin (NGAL) is a promising biomarker in humans and dogs with kidney disease. This protein is expressed by many cells including renal tubular cells and neutrophils. The aim of this study was to evaluate the effect of urinary tract infection (UTI) on urinary NGAL (uNGAL) concentration in dogs. Urine culture and measurement of uNGAL level were performed in 80 non-azotemic dogs suspected of UTI and 19 healthy dogs. Dogs were divided in three groups: 19 healthy dogs, 25 dogs with positive culture and 55 dogs suspected of UTI but with negative culture. uNGAL and uNGAL/Creatinine was significantly higher (P<0.0001) in dogs with UTI (14.22 ng/mL;19.74 micro g/g) compared to Healthy (0.24 ng/mL;0.11 micro g/g) and Negative (1.13 ng/mL;1.28 micro g/g) dogs. A uNGAL value <3.38 ng/mL had a negative predictive value for UTI of 87%. Presence of UTI has to be considered when uNGAL is used to detect kidney disease.
Publication Type
Journal article.

<97>
Accession Number
20143026833
Author
Berent, A.
Title
Cystourethroscopy in the cat: what do you need? When do you need it? How do you do it? (Special Issue: Endoscopy and endosurgery, part 2.)
Source
Journal of Feline Medicine and Surgery; 2014. 16(1):34-41. 16 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract

Practical relevance: Diagnostic and therapeutic cystourethroscopy has become very popular in the diagnosis and treatment of canine lower and upper urinary tract disease in the past 5-7 years. As expertise is expanding, the use of similar techniques in feline patients is growing. Outline: This is a brief overview of the indications, equipment needed and procedure for performing cystourethroscopy in feline patients. The principal focus is normal feline lower urinary tract anatomy. Some examples of abnormalities that might be seen are also provided, and therapeutic cystourethroscopy is touched upon.
Publication Type
Journal article.

<98>
Accession Number
20143006553
Author
Vuckovic, S.; Matanovic, K.; Martinec, B. S.
Title
Prevalence and antimicrobial susceptibility of bacteria causing urinary tract infections in dogs and cats in Croatia.
Source
5th International Congress "Veterinary Science and Profession", Zagreb, Croatia, 3-4 October 2013. Book of abstracts; 2013. :80.
Publisher
University of Zagreb
Location of Publisher
Zagreb
Country of Publication
Croatia
Publication Type
Conference paper.

<99>
Accession Number
20143035325
Author
Olin, S. J.; Bartges, J. W.; Jones, R. D.; Bemis, D. A.
Title
Diagnostic accuracy of a point-of-care urine bacteriologic culture test in dogs.
Source
Journal of the American Veterinary Medical Association; 2013. 243(12):1719-1725. 8 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
Objective - To determine diagnostic accuracy of a compartmented bacteriologic culture and antimicrobial susceptibility testing plate (CCSP) for detection of bacterial urinary tract infection (UTI) in dogs and antimicrobial susceptibility testing of bacterial isolates. Design - Evaluation study. Sample - 62 frozen,

previously characterized bacterial isolates from canine urine cultures and 147 canine urine samples. Procedures - The study was conducted in 2 phases: preliminary assay validation (phase 1) and diagnostic validation (phase 2). For phase 1, the frozen bacterial isolates were revitalized and tested with the CCSP and with standard aerobic microbiological culture (SAMC). For phase 2, the urine samples were tested with the CCSP and SAMC in parallel. Results - For phase 1, after 24 hours of culture, 46 of 62 (74%) bacterial isolates had growth on the CCSP and all (100%) had growth in SAMC. For bacterial isolates with growth, the CCSP allowed correct identification of 45 of 46 (98%) isolates. Isolates yielding no growth on the CCSP were gram-positive cocci (Staphylococcus spp [n=7] and Enterococcus spp [9]). In phase 2, the overall diagnostic accuracy of the CCSP, compared with SAMC, was 94% (sensitivity, 81%; specificity, 99%). The positive predictive value was 98% and negative predictive value was 92%. Susceptibility results for enrofloxacin and trimethoprim-sulfamethoxazole as determined with the CCSP had greatest concordance with those determined by SAMC (71% and 96%, respectively), compared with other antimicrobial susceptibilities. Conclusions and Clinical Relevance - Use of the CCSP led to accurate exclusion of UTI in dogs without a UTI but was less reliable for diagnosis of UTI, particularly infections caused by gram-positive cocci. Standard aerobic microbiological culture remains the gold standard for detection of UTI in dogs.
Publication Type
Journal article.

<100>
Accession Number
20143048003
Author
Furini, A. A. da C.; Silva, B. T. O. dos S.; Chiaparini, J.; Ramos, M. P. S. C. M.; Martins, E. A.; Atique, T. S. C.; Netto, H. A.; Nardo, C. D. D. de; Castro, K. F. de
Title
Epidemiological analysis, identification and antimicrobial susceptibility profile of dogs with isolated from urinary tract infection. [Portuguese]
Source
Acta Veterinaria Brasilica; 2013. 7(4):288-293. 24 ref.
Publisher
Universidade Federal Rural do Semi-Arido (UFERSA)
Location of Publisher
Mossoro
Country of Publication
Brazil
Abstract
Urinary tract infections (ITUs), occur in approximately 14% of dogs, and are among the most common indications for antibiotictherapy. ITUs have variable etiology, with a higher prevalence of bacteria. The aim of this study was to estimate the prevalence of uropathogens in ITUs in a canine population, assisted at the Veterinary Hospital "Dr. Halim Atique", between January 2006 and April 2012. The analysis was performed based on paper and electronic records, such as gender, age and race of affected animals. Later, a test for susceptibility to antimicrobial agents and description of etiologic agents was performed. Of the 358 evaluated (44.72%) cultures were positive for the growth of microorganisms. In relation to the insulation, the frequency of Escherichia coli was 37.64%; Staphylococcus spp. of 19.66% among others. The largest bacterial isolation was described in the age group above 84 months, being the most prevalent among males (n=37) and female (n=50), the age group above 84 months was also statistically significant for both the presence of urinary infection in animals Breed (p=0.009). There was a higher resistance of Escherichia coli to Clindamycin (100%), Staphylococcus spp. to Ampicillin (82.14%). The results point to the importance of laboratory diagnostic to definition of the etiologic agent, and thus for the realization of better therapeutic approaches.
Publication Type
Journal article.

<101>
Accession Number
20143047007
Author
Hernandez, J.; Bota, D.; Farbos, M.; Bernardin, F.; Ragetly, G.; Medaille, C.
Title
Risk factors for urinary tract infection with multiple drug-resistant Escherichia coli in cats.
Source
Journal of Feline Medicine and Surgery; 2014. 16(2):75-81. 18 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract
The emergence of multiple drug-resistant (MDR) bacteria is a growing public health problem. The objective of this retrospective study was to identify risk factors associated with MDR Escherichia coli infection of the urinary tract in cats. All cats presenting with an E. coli urinary infection between March 2010 and December 2012 were included and divided into two groups: an MDR group and a non-MDR group. The effects of different variables on the occurrence of an MDR E. coli infection were evaluated: age, sex, additional diseases, number of antibiotics and number of days of hospitalisation. Fifty-two cats were identified (10 MDR and 42 non-MDR). The number of antibiotic groups used within the last 3 months was associated with an increased risk of MDR E coli urinary infection (P=0.007). The association of the number of days of hospitalisation within the last 3 months and the increased risk of MDR E. coli urinary infection did not reach significance (P=0.090). This study provides evidence that systematic urinary culture with antibiotic sensitivity testing should be recommended when treating urinary tract infections if antibiotics have been prescribed within the past 3 months. Moreover, the selection of MDR bacteria through antibiotic use should be considered as a potential risk associated with treatment.
Publication Type
Journal article.

<102>
Accession Number
20143066365
Author
McGhie, J. A.; Stayt, J.; Hosgood, G. L.
Title
Prevalence of bacteriuria in dogs without clinical signs of urinary tract infection presenting for elective surgical procedures.
Source
Australian Veterinary Journal; 2014. 92(1/2):33-37. 49 ref.
Publisher
Wiley-Blackwell
Location of Publisher
Melbourne
Country of Publication

Australia
Abstract
Objectives: To determine the frequency of bacteriuria in dogs presenting for elective surgery, to compare the frequency of bacteriuria in dogs presenting for orthopaedic (non-neurological) procedures to that of dogs presenting for soft tissue procedures and to measure the agreement of microscopic visualisation of bacteria in urine sediment with the occurrence of bacterial growth on culture. Methods: Prospective cohort study of 140 client-owned dogs. Urine was collected via prepubic cystocentesis prior to or immediately after induction of anaesthesia. Urine was submitted for quantitative bacteriological culture and urinalysis. The dogs' age, sex, weight and breed were recorded, as well as the surgical procedure performed. Results: In total, 80 orthopaedic and 60 soft tissue surgical cases were included in the study; 3 dogs (2.1%) returned bacterial growth on culture (positive urine culture) and 19 (13.6%) recorded urine sediment with pyuria and/or bacteriuria on urinalysis (positive urinalysis). All dogs with positive urine culture were female and two of them underwent orthopaedic procedures. Each bitch had growth of Escherichia coli >105CFU/mL. The agreement between positive urinalysis and positive urine culture was poor (kappa =0.15). Conclusions: The prevalence of bacteriuria in dogs without clinical signs of urinary tract infection in this population was low (2.1%). An at-risk population could not be identified because of the small number of positive outcomes. A positive urinalysis showed poor agreement with urine culture results and therefore the decision to treat without performing a urine culture is not advised.
Publication Type
Journal article.

<103>
Accession Number
20143052076
Author
Gunn-Moore, D.
Title
Urethral obstruction in feline lower urinary tract disease.
Source
Veterinary Times; 2014. 44(6):6...10. 10 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Abstract
Feline lower urinary tract disease (FLUTD) is frequently seen in domestic cats and urethral obstruction is a common medical emergency. The most common cause of FLUTD is feline idiopathic cystitis (FIC), which is associated with stress. FIC and the associated condition of urethral plugs account for approximately 75 per cent of all cases of FLUTD and up to 90 per cent of cases of urethral obstruction. Relieving urethral obstruction can be challenging, so this article gives tips to help improve your success, including: the importance of performing a rectal examination in all cases prior to trying to pass a catheter; pulling the prepuce caudodorsally to help straighten the urethra during catheterisation, ensuring the catheter tip sits just within the bladder when the catheter is to be left in situ, to reduce the risk of damage to the proximal urethra; and giving prazosin when the catheter is left in situ and following catheter removal to try to reduce the risk of rapid re-obstruction.
Publication Type
Journal article.

<104>
Accession Number
20143085141
Author
Heilmann, R. M.; Wright, Z. M.; Lanerie, D. J.; Suchodolski, J. S.; Steiner, J. M.
Title
Measurement of urinary canine S100A8/A9 and S100A12 concentrations as candidate biomarkers of lower urinary tract neoplasia in dogs.
Source
Journal of Veterinary Diagnostic Investigation; 2014. 26(1):104-112.
Publisher
American Association of Veterinary Laboratory Diagnosticians
Location of Publisher
Davis
Country of Publication
USA
Abstract
Members of the S100 family of calcium-binding proteins (S100A8, A9, and A12; calgranulins) have been associated with inflammation and cancer in human beings. Proteins S100A8 and A9 were overexpressed in human patients with transitional cell carcinoma (TCC) and prostate carcinoma (PCA), suggesting their potential as biomarkers for diagnosing and/or predicting the progression of such neoplasms. Calgranulins have not been studied in dogs with TCC or PCA. Established in-house immunoassays were validated and found suitable for measuring S100A8/A9 and S100A12 in canine urine samples to allow the study of the role of these biomarkers in dogs with TCC or PCA. Urinary calgranulin concentrations were not affected by blood contamination (e.g., due to cystocentesis), and should be normalized against urine specific gravity or urinary creatinine concentration. Urinary calgranulin concentrations were significantly increased in 11 dogs with TCC or PCA (untreated) compared to 42 healthy dogs, and the ratio between S100A8/A9 and S100A12 was significantly higher in 11 dogs with TCC or PCA than in 10 dogs diagnosed with a urinary tract infection, suggesting that calgranulins are potential biomarkers for TCC or PCA in canine patients. The clinical utility of measuring urinary calgranulins in dogs with suspected TCC or PCA warrants further investigation.
Publication Type
Journal article.

<105>
Accession Number
20143103104
Author
Carvalho, V. M.; Spinola, T.; Tavolari, F.; Irino, K.; Oliveira, R. M.; Ramos, M. C. C.
Title
Urinary tract infection (UTI) in dogs and cats: etiology and antimicrobial resistance. [Portuguese]
Source
Pesquisa Veterinaria Brasileira; 2014. 34(1):62-70. 36 ref.
Publisher
Colegio Brasileiro de Patologia Animal
Location of Publisher
Rio de Janeiro
Country of Publication
Brazil
Abstract

Bacterial urinary tract infections (UTIs) are a common cause of disease in dogs, cats and humans. Although Gram-positive bacteria such as Staphylococcus spp., Streptococcus spp. and Enterococcus spp. are linked with UTIs, Gram-negative bacteria (Escherichia coli, Proteus spp., Klebsiella spp., Pseudomonas spp. and Enterobacter spp.) account for 75% of the cases. This study aimed to determine the frequency of different genera of bacteria in UTIs of dogs and cats as well as their susceptibility to antimicrobials used in clinical routine. Therefore, urine samples from 100 dogs and cats suspected of UTI were collected aseptically. Samples underwent to microbiological evaluation through qualitative and quantitative methods, and urinalysis. All isolates were tested for antimicrobial susceptibility. UTI was confirmed in 74% of animals, with no predominance in one gender. With regard to age, 85% of dogs and 87% of cats were older than six years. Ninety-five bacterial strains were isolated with higher frequency of Escherichia coli (55% of total) of serogroups O6 and O2. High levels of antimicrobial resistance were found. Gram-positive strains had the highest resistance to tetracycline (46.1%), enrofloxacin, cotrimazol and streptomycin (42.3% each), while above 50% of Gram-negative were resistant to amoxicillin and tetracycline. Multidrug resistance has been observed in more than 50% of the major genera isolated. Considering the zoonotic potential of E. coli strains and its strong participation in antimicrobial resistance dissemination, the important role of the veterinarians in the prevention and control of animal UTIs and their contribution to public health must be emphasized.

Publication Type

Journal article.

<106>

Accession Number

20143115942

Author

Daniels, J. B.; Tracy, G.; Irom, S. J.; Lakritz, J.

Title

Fluoroquinolone levels in healthy dog urine following a 20-mg/kg oral dose of enrofloxacin exceed mutant prevention concentration targets against Escherichia coli isolated from canine urinary tract infections.

Source

Journal of Veterinary Pharmacology and Therapeutics; 2014. 37(2):201-204. 35 ref.

Publisher

Wiley-Blackwell

Location of Publisher

Oxford

Country of Publication

UK

Abstract

A 3-day course of oral enrofloxacin is effective for treating uncomplicated urinary tract infection (UTI) in dogs when administered 20 mg/kg Q24H. However, emergence of fluoroquinolone-resistant mutants of uropathogens is a concern. Urine concentrations of enrofloxacin and ciprofloxacin were measured in six healthy dogs following dose of enrofloxacin 20 mg/kg. Mutant prevention concentrations of Escherichia coli isolated from canine UTI were also determined against ciprofloxacin. Urine AUC(24)/MPC ratios considering ciprofloxacin concentrations ranged 3819-7767, indicating that selection of resistant E. coli mutants in dogs with uncomplicated UTIs is unlikely in the bladder given that an AUC(24)/MPC=39 is considered to be protective against mutant selection for ciprofloxacin. However, additional studies are required to evaluate the effects of this enrofloxacin treatment protocol on bacteria that colonize anatomic sites where fluoroquinolones achieve lower concentrations compared to the urinary bladder.

Publication Type

Journal article.

<107>
Accession Number
20143129464
Author
Wagner, S.; Gally, D. L.; Argyle, S. A.
Title
Multidrug-resistant Escherichia coli from canine urinary tract infections tend to have commensal phylotypes, lower prevalence of virulence determinants and ampC-replicons.
Source
Veterinary Microbiology; 2014. 169(3/4):171-178. 36 ref.
Publisher
Elsevier B. V.
Location of Publisher
Amsterdam
Country of Publication
Netherlands
Abstract
Multidrug-resistant Escherichia coli is an emerging clinical challenge in domestic species. Treatment options in many cases are limited. This study characterized MDR E. coli isolates from urinary tract infections in dogs, collected between 2002 and 2011. Isolates were evaluated in terms of beta -lactamase production, phylogenetic group, ST type, replicon type and virulence marker profile. Comparisons were made with antibiotic susceptible isolates also collected from dogs with urinary tract infections. AmpC beta -lactamase was produced in 67% of the MDR isolates (12/18). Of these, 8 could be specifically attributed to the CMY-2 gene. None of the isolates tested in either group expressed ESBLs. Phylo-group distribution was as expected in the susceptible isolates, with an over representation of the pathogenic B2 phylo-group (67%). In contrast, the phylogenetic background for the MDR group was mixed, with representation of commensal phylo-groups A and B1. The B2 phylo-group represented the smallest proportion (A, B1, B2 or D was 28%, 22%, 11% and 33%, respectively). Virulence marker profiles, evaluated using IdentibacReg. microarray, discriminated between the two groups. Marker sequences for a core panel of virulence determinants were identified in most of the susceptible isolates, but not in most of the MDR isolates. These findings indicate that for MDR isolates, plasmid-mediated AmpC is an important resistance mechanism, and while still capable of causing clinical disease, there is evidence for a shift towards phylogenetic groups of reduced inferred virulence potential. There was no evidence of zoonotic potential in either the susceptible or MDR urinary tract isolates in this study.
Publication Type
Journal article.

<108>
Accession Number
20143138430
Author
Silva, A. C. da; Muzzi, R. A. L.; Oberlender, G.; Muzzi, L. A. L.; Coelho, M. de R.; Henrique, B. F.
Title
Feline idiopathic cystitis: a review. [Portuguese]
Source
Arquivos de Ciencias Veterinarias e Zoologia da UNIPAR; 2013. 16(1):93-96. 20 ref.
Publisher
Universidade Paranaense
Location of Publisher
Umuarama
Country of Publication

Brazil
Abstract
Feline idiopathic cystitis (FIC) is a common disease of domestic cats, being one of the main causes of feline low urinary tract disease (FLUTD). Its diagnosis is made by excluding other causes and therapeutic management can be variable, given that, cats can often present recurrence or chronicity of the disease. Thus, this paper evaluates different aspects of the FIC, as pathophysiology, diagnosis and treatment, exploring new perspectives presented in literature.
Publication Type
Journal article.

<109>
Accession Number
20143154414
Author
Rizzi, T. E.
Title
Urinalysis in companion animals. Part 1: Collection, sample handling, & initial evaluation.
Source
Today's Veterinary Practice; 2014. 4(2):64-68. 1 ref.
Publisher
VetMed Communications
Location of Publisher
Glen Mills
Country of Publication
USA
Publication Type
Journal article.

<110>
Accession Number
20143161743
Author
Ybarra, W. L.; Sykes, J. E.; Wang, Y. L.; Byrne, B. A.; Westropp, J. L.
Title
Performance of a veterinary urine dipstick paddle system for diagnosis and identification of urinary tract infections in dogs and cats.
Source
Journal of the American Veterinary Medical Association; 2014. 244(7):814-819. 17 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
Objective - To evaluate the performance of a veterinary urine dipstick paddle (UDP) for diagnosis and identification of urinary tract infection (UTI) in dogs and cats. Design - Prospective, randomized, blinded study. Sample - 207 urine specimens. Procedures - UDPs were inoculated by 2 investigators and incubated

according to manufacturer's instructions. Results, including presence or absence of bacterial growth, organism counts, and identification of uropathogens, were compared between investigators and with microbiology laboratory results. A subset of UDPs with bacterial growth was submitted to the laboratory for confirmation. Results - The laboratory reported 64 (30.9%) specimens had growth of bacteria. Bacterial growth was reported for 63 (30.4%) and 58 (28.0%) of the UDPs by investigators 1 and 2, respectively. Sensitivity and specificity of the UDP for detection of bacterial growth were 97.3% and 98.6%, respectively, for investigator 1 and 89.1% and 99.3%, respectively, for investigator 2. For UPDs with >=105 colony-forming units/mL, organism counts correlated well between the laboratory and investigators 1 (r=0.95) and 2 (r=0.89). Pathogen identification was not always accurate. Only 25 of 33 (75.8%) UDPs submitted for confirmation yielded bacteria consistent with those isolated from the original bacterial culture of urine. Conclusions and Clinical Relevance - The veterinary UDP system was a sensitive test for screening patients for bacterial UTI, but uropathogen identification was not always accurate. When UDPs have bacterial growth, a fresh urine specimen should be submitted to the laboratory to confirm the identity of the organisms and to permit antimicrobial susceptibility testing.
Publication Type
Journal article.

<111>
Accession Number
20143170802
Author
Fleischhacker, S. N.; Horstmann, C.; Hartmann, K.; Schubert, S.; Dorsch, R.
Title
Carbonate apatite nephrolithiasis associated with Corynebacterium urealyticum urinary tract infection in a dog.
Source
Australian Veterinary Journal; 2014. 92(5):161-165. 30 ref.
Publisher
Wiley-Blackwell
Location of Publisher
Melbourne
Country of Publication
Australia
Abstract
Background: Urinary tract infections caused by Corynebacterium urealyticum are uncommon in veterinary medicine. Encrusted cystitis, encrusted pyelitis and uroliths have been described as complications in humans, but only encrusted cystitis and cystoliths have been reported in dogs so far. Because C. urealyticum is usually resistant to all standard antibacterial drugs, antimicrobial treatment and elimination of this microorganism are challenging. Case report: An 11-month-old female spayed mixed-breed dog was evaluated because of a C. urealyticum urinary tract infection, mineralisation within both renal pelvises and failure of antimicrobial treatment. Physical examination, haematology and biochemistry were unremarkable. Radiographic and ultrasonographic examinations confirmed bilateral nephrolithiasis. Voided uroliths were composed of 100% carbonate apatite. Urinalysis was indicative of bacterial infection. Aerobic culture of the urine and 16 S rRNA sequencing identified significant growth of C. urealyticum and susceptibility testing revealed sensitivity to only vancomycin and linezolid. Conclusion: Treatment with the oxazolidinone antibacterial, linezolid, in combination with a urine-acidifying diet resulted in elimination of this multiresistant microorganism and complete resolution of nephrolithiasis.
Publication Type
Journal article.

<112>
Accession Number
20143188496
Author
Bracha, S.; McNamara, M.; Hilgart, I.; Milovancev, M.; Medlock, J.; Goodall, C.; Wickramasekara, S.; Maier, C. S.
Title
A multiplex biomarker approach for the diagnosis of transitional cell carcinoma from canine urine.
Source
Analytical Biochemistry; 2014. 455:41-47.
Publisher
Elsevier Academic Press
Location of Publisher
San Diego
Country of Publication
USA
Abstract
Transitional cell carcinoma (TCC), the most common cancer of the urinary bladder in dogs, is usually diagnosed at an advanced disease stage with limited response to chemotherapy. Commercial screening tests lack specificity and current diagnostic procedures are invasive. A proof of concept pilot project for analyzing the canine urinary proteome as a noninvasive diagnostic tool for TCC identification was conducted. Urine was collected from 12 dogs in three cohorts (healthy, urinary tract infection, TCC) and analyzed using liquid chromatography tandem mass spectrometry. The presence of four proteins (macrophage capping protein, peroxiredoxin 5, heterogeneous nuclear ribonucleoproteins A2/B, and apolipoprotein A1) was confirmed via immunoblot. Of the total 379 proteins identified, 96 were unique to the TCC group. A statistical model, designed to evaluate the accuracy of this multiplex biomarker approach for diagnosis of TCC, predicted the presence of disease with 90% accuracy.
Publication Type
Journal article.

<113>
Accession Number
20143185219
Author
Lulich, J.; Kruger, J.; Macleay, J.
Title
Advances in management of feline lower urinary tract disease: efficacy of nutritional struvite dissolution in cats.
Source
Proceedings of the NAVC Conference, 18-22 January 2014, Orlando, Florida, USA. Volume 28, Small Animal & Exotics; 2014. :unpaginated. 7 ref.
Publisher
North American Veterinary Community (NAVC)
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<114>
Accession Number
20143210288
Author
Steinbach, S.; Neiger, R.
Title
Urinary tract infections in dogs and cats. [German]
Source
Praktische Tierarzt; 2014. 95(6):524-528.
Publisher
Schlutersche Verlagsgesellschaft GmbH & Co. KG
Location of Publisher
Hannover
Country of Publication
Germany
Abstract
The aetiology, clinical signs, physiopatholopgy, diagnosis and treatment of urinary tract infections in cat and dogs are described.
Publication Type
Journal article.

<115>
Accession Number
20143214633
Author
Gunn-Moore, D.
Title
Managing feline cystitis long-term.
Source
Veterinary Times; 2014. 44(25):20-21. 26 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Abstract
Feline cystitis, that is to say, feline lower urinary tract disease (FLUTD), is common, with most cases being stress-associated feline idiopathic cystitis (FIC). FIC and the associated condition of urethral plugs account for approximately 75 per cent of all cases of FLUTD, and up to 90 per cent of urethral obstruction. The key to successful treatment is a correct diagnosis. Where no underlying cause can be found, treat for FIC.
Publication Type
Journal article.

<116>
Accession Number
20143250416
Author
Sycamore, K. F.; Poorbaugh, V. R.; Pullin, S. S.; Ward, C. R.
Title
Comparison of urine and bladder or urethral mucosal biopsy culture obtained by transurethral cystoscopy in dogs with chronic lower urinary tract disease: 41 cases (2002 to 2011).
Source
Journal of Small Animal Practice; 2014. 55(7):364-368. 12 ref.
Publisher
Wiley-Blackwell
Location of Publisher
Oxford
Country of Publication
UK
Abstract
OBJECTIVES: To compare aerobic bacterial culture of urine to cystoscopically obtained mucosal biopsies of the lower urinary tract in dogs. METHODS: Retrospective review of case records from dogs that had transurethral cystoscopy at a veterinary teaching hospital between 2002 and 2011. Dogs that had culture results from cystocentesis obtained urine and transurethral cystoscopically obtained mucosal samples were included in the study. Pathogens identified were compared between sampling methods. RESULTS: Forty dogs underwent transurethral cystoscopy for lower urinary tract disease on 41 occasions. There was significant (P=0.0003) agreement between urine and mucosal biopsy cultures. Both cultures were negative in 66% and positive in 17% of dogs. There was a 17% disagreement between the sampling methods. Although not statistically significant, more mucosal samples than urine cultures were positive for Escherichia coli. CLINICAL SIGNIFICANCE: There was a good agreement between pathogen identification from urine and lower urinary tract mucosal cultures. These results do not support the utilisation of transurethral cystoscopy to obtain biopsy samples for culture in dogs with urinary tract infection and positive urine culture. Individual cases with possible chronic urinary tract infection and negative urine culture may benefit from transurethral cystoscopy to obtain biopsies for culture.
Publication Type
Journal article.

<117>
Accession Number
20143243404
Author
Cervantes, S.
Title
Lower urinary tract disease and bacterial infections in geriatric cats. [Spanish]
Source
Argos - Informativo Veterinario; 2014. (159):52, 54. 3 ref.
Publisher
ASIS Biomedia s.l.
Location of Publisher
Zaragoza
Country of Publication
Spain
Abstract
The clnical aspects, aetiology, diagnosis, pathophysiology, prevalence, and treatment of lower urinary tract infections in geriatric cats are presented.

Publication Type
Journal article.

<118>
Accession Number
20143314647
Author
Dorsch, R.; Remer, C.; Sauter-Louis, C.; Hartmann, K.
Title
Feline lower urinary tract disease in a German cat population: a retrospective analysis of demographic data, causes and clinical signs.
Source
Tierarztliche Praxis. Ausgabe K, Kleintiere/Heimtiere; 2014. 42(4):231-239. 21 ref.
Publisher
Schattauer GmbH
Location of Publisher
Stuttgart
Country of Publication
Germany
Abstract
Objective: To investigate epidemiologic data, clinical signs, results of urinalysis and causes of lower urinary tract disease in a German veterinary hospital population of cats and to determine if the demographic data, history, clinical signs and urinalysis results correlate with a particular etiology. Materials and methods: Cats presented with signs of feline lower urinary tract disease (FLUTD) with a documented history and physical examination, a complete urinalysis (urine specific gravity, urine dipstick and sediment, urine culture) of urine obtained by cystocentesis or catheterization, and diagnostic imaging of the urinary tract were included into the study. Cats that had received a previous treatment during the same episode of FLUTD were excluded. Results: A total of 302 cats were included into the study. Cats with FLUTD presented throughout the seasons with similar frequency. The most common diagnosis was feline idiopathic cystitis (FIC) (55.0%), followed by bacterial urinary tract infection (UTI) (18.9%), urethral plug (10.3%) and urolithiasis (7.0%). Urethral obstruction was significantly more frequent in cats with FIC than in cats with UTI. Cats with FIC and urethral plugs were significantly younger and had significantly higher body weights than cats with UTI and neoplasia. FIC and urethral plugs were significantly more common causes of FLUTD in cats younger than 10 years compared to cats that were 10 years or older (65.2% versus [vs.] 35.8% and 13.3% vs. 3.0%), while the incidences of UTI and neoplasia increased with age (12.9% vs. 41.8% and 1.0% vs. 13.4%). Conclusion and clinical relevance: FIC and UTI are the most common diagnoses in cats with FLUTD, with a significant age-related difference in incidence.
Publication Type
Journal article.

<119>
Accession Number
20143355858
Author
Rose, L.
Title
Canine urinary tract infection.
Source

The Veterinary Nurse; 2014. 5(7):384, 386-389. 28 ref.
Publisher
MA Healthcare Limited
Location of Publisher
London
Country of Publication
UK
Abstract
Canine urinary tract infections (UTIs) are common in both first opinion and referral practice patients. Understanding the aetiology will help to identify those at-risk patients. Diagnosis incorporates findings from the history, clinical examination, complete urinalysis and urine culture. A UTI may be a primary disease or secondary to a wide array of underlying predisposing conditions. Recurrence of infection is likely unless any predisposing condition is identified and treated appropriately.
Publication Type
Journal article.

<120>
Accession Number
20143354483
Author
Windahl, U.; Holst, B. S.; Nyman, A.; Gronlund, U.; Bengtsson, B.
Title
Characterisation of bacterial growth and antimicrobial susceptibility patterns in canine urinary tract infections.
Source
BMC Veterinary Research; 2014. 10(217):(24 September 2014). 39 ref.
Publisher
BioMed Central Ltd
Location of Publisher
London
Country of Publication
UK
Abstract
Background: Bacterial urinary tract infection (UTI) is a common reason for antimicrobial therapy in dogs. A reported increase in multi-drug resistance in canine bacterial pathogens, including resistance to extended-spectrum cephalosporins (ESC) is of concern as antimicrobial resistance complicates therapy in dogs. In addition, it is a possible public health concern. The objectives of this study were to investigate the relative prevalence of pathogens in urine samples from dogs with urinary tract infection sampled at referral hospitals, clinics and mixed veterinary practices and to investigate if this was influenced by sample material or by contamination of the culture. The second objective was to assess the susceptibility patterns to clinically relevant antimicrobials and to investigate if this was influenced by whether the samples originated from smaller clinics or from referral hospitals and to perform active screening for the presence of Enterobacteriaceae resistant to ESC. Results: Escherichia coli was the most frequently isolated pathogen (68%) followed by staphylococci (11%). E. coli isolates were found significantly more often in pure culture than in contaminated samples. Staphylococcus pseudintermedius and Staphylococcus aureus isolates were significantly more prevalent in pre-incubated samples compared to samples submitted as non-incubated media. Susceptibility to the majority of the tested first-line antimicrobials was common. Multiresistance was rare, and these isolates were all susceptible to at least one relevant antimicrobial. Isolates in samples from small animal clinics or mixed veterinary practices were less likely to be susceptible compared to isolates originating from referral animal hospitals. ESC-resistant Enterobacteriacae isolates were found in one per cent of the positive cultures. Bacteria with transferable ESC resistance were confirmed in one dog. The gene demonstrated was blaCMY2. Conclusions: Choice of sample material might influence the possibility of

detecting Staphylococcus pseudintermedius and Staphylococcus aureus isolates in clinical cases of UTI in dogs. Based on the study results, use of first-line antimicrobials is a rational empirical antimicrobial therapy for the studied dog population. E. coli was the most prevalent pathogen, but prevalence of infection with ESC resistant Enterobacteriaceae including E. coli was low, as such isolates were found in only one per cent of the positive cultures.
Publication Type
Journal article.

<121>
Accession Number
20143377536
Author
Torres, A. R.; Cooke, K.
Title
Intravesical instillation of amikacin for treatment of a lower urinary tract infection caused by Pseudomonas aeruginosa in a dog.
Source
Journal of the American Veterinary Medical Association; 2014. 245(7):809-811. 4 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
Case Description - A 9-year-old neutered male Golden Retriever was evaluated because of recurrent lower urinary tract infection subsequent to placement of a permanent cystostomy tube. Clinical Findings - The dog was clinically normal except for the presence of malodorous urine. Bacteriologic culture of a urine sample obtained by cystocentesis yielded growth of Pseudomonas aeruginosa, which was susceptible to amikacin, gentamicin, imipenemcilastatin, and ticarcillin-clavulanic acid. Treatment and Outcome - The dog was administered amikacin sulfate (15 mg/kg [6.8 mg/lb], SC, q 24 h) for 14 days before treatment was discontinued because of the presence of casts in the urine. The cystostomy tube was replaced, and intravesical instillation of amikacin (15 mg/kg diluted in 30 mL of saline [0.9% NaCl] solution, q 12 h) was initiated. On day 25 of instillation treatment, bacterial culture of a urine sample yielded no growth, urinalysis revealed no casts, and SUN and creatinine concentrations were within reference intervals. On day 27 of instillation treatment, gross hematuria was observed, which resolved following discontinuation of amikacin instillation. Clinical Relevance - In this dog, treatment of a lower urinary tract infection caused by a multidrug-resistant strain of P aeruginosa was successfully achieved with intravesical instillation of amikacin. Results of serial serum biochemical analyses remained within reference limits, and urine casts were not identified on urinalyses during the treatment period, which suggested that systemic absorption of amikacin was minimal. Intravesical instillation of antimicrobials may be a viable treatment option for dogs with lower urinary tract infections caused by multidrug-resistant bacteria.
Publication Type
Journal article.

<122>
Accession Number
20143361854

Author
Grzegory, M.; Kubiak, K.; Jankowski, M.; Spuzak, J.; Bakowska, J.; Glinska-Suchocka, K.; Dzimira, S.
Title
The most common causes of urinary tract infections and their treatment in dogs and cats. [Polish]
Source
Zycie Weterynaryjne; 2014. 89(10):868-872. 18 ref.
Publisher
Krajowa Izba Lekarsko Weterynaryjna
Location of Publisher
Warszawa
Country of Publication
Poland
Abstract
The aim of this study was to describe urinary tract treatment approaches in small companion animals. Infections of urinary tract are very common in dogs and cats. The urinary tract infection occurs when there is a breach in host defense mechanisms and sufficient number of a virulent microbes are allowed to adhere, multiply and persist in epithelial cells of mucosae. Infections are typically bacterial, however fungi and viruses may also be involved. The purpose of this article was to discuss these infections in dogs and cats and possible therapies.
Publication Type
Journal article.

<123>
Accession Number
20143375129
Author
Simpson, K.
Title
How to approach feline: lower urinary tract disease.
Source
Companion; 2014. (November):14-19.
Publisher
British Small Animal Veterinary Association
Location of Publisher
Quedgeley
Country of Publication
UK
Publication Type
Journal article.

<124>
Accession Number
20143082162
Author
Sorensen, T. M.
Title
Mapping urinary infections of dogs. [Danish]
Source

Dansk Veterinaertidsskrift; 2014. 97(2):16-17. 15 ref.
Publisher
Danske Dyrlaegeforening
Location of Publisher
Copenhagen
Country of Publication
Denmark
Abstract
In spring 2014 a project on urinary tract infections of dogs that will involve 50-100 practicing veterinarians began in Denmark. There will be 4 phases: a study of current methods of diagnosis and treatment; trials with the new rapid growth medium, Canine Flexicult; preparation for and instruction in new diagnostic methods; assessment of the usefulness of these methods in practice. Doctors will also be involved in the project and it is hoped that evidence-based protocols, especially for antibiotic use for treating these infections will emerge.
Publication Type
Journal article.

<125>
Accession Number
20133017538
Author
Grauer, G. F.
Title
Canine urinary tract infections.
Source
NAVC Clinician's Brief; 2012. (December):19-21.
Publisher
Educational Concepts LLC
Location of Publisher
Tulsa
Country of Publication
USA
Abstract
A case of urinary tract infection (UTI) caused or complicated by probable urethral sphincter mechanism incompetence (USMI), abnormal vulvar anatomy and subsequent perivulvar inflammation in an 8-year-old, spayed, black, Labrador Retriever was described [USA, date not given]. The dog presented with urinary incontinence of several months' duration. Physical examination, including rectal examination and palpation of the urinary bladder, was unremarkable. Complete blood count and biochemistry profile were within normal limits. Urinalysis obtained by cystocentesis revealed a cloudy appearance with pH of 7.5, urine specific gravity of 1.037, 2+ proteinuria, 25 to 30 RBCs/hpf, 10 to 15 WBCs/hpf, 25 struvite crystals/hpf and Gram negative rods. Urine culture yielded Escherichia coli (>1000 cfu/ml) sensitive to amoxicillin-clavulanic acid. Abnormal vulvar anatomy and USMI resulted in a moist perivulvar dermatitis and increased the number of pathogenic bacteria at the vulvar opening. Excessive perivulvar skinfolds likely occurred secondary to weight gain. The dog was treated with amoxicillin-clavulanic acid at 13.75 mg/kg PO q12h for 4 weeks, indefinite administration of phenylpropanolamine at 1.5 mg/kg PO q12h for sphincter incompetence, local treatment (astringents, hot-packing, topical antibiotics) and an Elizabethan collar to prevent licking of the perivulvar dermatitis. Improvement was observed after treatment, however reinfection occurred 2 months later. Urine culture again yielded E. coli but with a different sensitivity profile (sensitive to fluoroquinolones). Phenylpropanolamine and local treatment of the perivulvar dermatitis helped improve the host defence mechanisms. Once the recurrent UTI had been effectively treated (follow-up urine cultures had no growth), long-term cranberry extract (CE) treatment was initiated to help support the compromised host defence mechanisms. Recheck urinalyses were performed quarterly.
Publication Type

Journal article.

<126>
Accession Number
20133029162
Author
Smee, N.; Loyd, K.; Grauer, G.
Title
UTIs in small animal patients: Part 1: Etiology and pathogenesis.
Source
Journal of the American Animal Hospital Association; 2013. 49(1):1-7.
Publisher
American Animal Hospital Association
Location of Publisher
Denver
Country of Publication
USA
Abstract
Understanding how urinary tract infections (UTIs) can occur and how to classify them can help the practitioner to make a plan for treatment. This review summarizes the etiology, pathogenesis, and host defense mechanisms associated with bacterial UTIs in dogs and cats.
Publication Type
Journal article.

<127>
Accession Number
20133046299
Title
Urinary tract infections in dogs with dermatitis treated with cyclosporine.
Source
Advances in Small Animal Medicine and Surgery; 2013. 26(1):5-6. 1 ref.
Publisher
Elsevier Inc.
Location of Publisher
Philadelphia
Country of Publication
USA
Publication Type
Journal article.

<128>
Accession Number
20133045579
Author

Ali Zohaib; Zeeshan Taj; Awais-ur-rehman Sial; Naeem, M. A.; Muhammad Saqlein
Title
Feline lower urinary tract disease - report of four cases.
Source
Pakistan Veterinary Journal; 2013. 33(1):131-132. 12 ref.
Publisher
Faculty of Veterinary Science, University of Agriculture
Location of Publisher
Faisalabad
Country of Publication
Pakistan
Abstract
This report describes the lower urinary tract disease (LUTD) in four male cats with two different etiologies. All animals were under three years of age and on commercial dry diet. Treatment guidelines prescribed for obstructive and non-obstructive cases were followed. This appears to be the first clinical report on feline LUTD in Pakistan.
Publication Type
Journal article.

<129>
Accession Number
20133056445
Author
Pusoonthornthum, R.; Pusoonthornthum, P.; Osborne, C. A.
Title
Risk factors for feline lower urinary tract diseases in Thailand.
Source
Thai Journal of Veterinary Medicine; 2012. 42(4):517-522. 15 ref.
Publisher
Faculty of Veterinary Science, Chulalongkorn University
Location of Publisher
Bangkok
Country of Publication
Thailand
Abstract
Feline lower urinary tract diseases (FLUTD) is a diagnostic term for cats with hematuria, dysuria, pollakiuria, and partial or complete urethral obstruction. The aim of the present study was to identify risk factors for cats with LUTD. Cats with LUTD were evaluated by history, physical examination, urinalysis, radiography, and contrast radiography. Clinically normal cats consisted of vaccinated cats without clinical signs of LUTD admitted to the same veterinary hospital. Cats with a history of urinary tract disease, and those received special treatment for LUTD were excluded. All cats' owners filled out standardized questionnaires about breed, gender, age, environmental factors, and diet of their cats to identify the risk and protective factors for LUTD. Chi-square analysis was used to assess significant association between urolith formation and categorical risk factors. In case of small expected frequencies, Fisher's exact test was used. The Mantel-Haenszel test was used to calculate odds ratios (ORMH) and 95% confidence interval. This estimation of relative risk considered significant if 95% confidence intervals for odds ratios did not include 1.0. The proportional morbidity ratio of Feline LUTD in Thai cats was 2.22%. Cats eating canned food had lower risk of developing LUTD (ORMH=0.12, 95% CI, 0.05 to 0.29) than cats eating dry food (ORMH=0.29, 95% CI, 0.10 to 0.88). Multivariate Logistic Regression was performed using backward elimination. The results demonstrated that overweight cats were four times at higher risks of developing LUTD than cats with ideal body weight (OR=4.68, 95% CI, 1.75 to 12.46).
Publication Type

Journal article.

<130>
Accession Number
20133102832
Author
Smee, N.; Loyd, K.; Grauer, G. F.
Title
UTIs in small animal patients: Part 2: diagnosis, treatment, and complications.
Source
Journal of the American Animal Hospital Association; 2013. 49(2):83-94.
Publisher
American Animal Hospital Association
Location of Publisher
Denver
Country of Publication
USA
Abstract
There are multiple considerations when making a treatment plan for patients with urinary tract infections (UTIs). In part 2 of this review the authors discuss the clinical signs, diagnosis, treatment, and complications associated with bacterial UTIs in dogs and cats. Part 1 of this review summarized etiology and pathogenesis (see the Jan/Feb 2013 issue of the Journal of the American Animal Hospital Association).
Publication Type
Journal article.

<131>
Accession Number
20133108886
Author
Zeltzman, P.
Title
How to avoid UTI frustration.
Source
Veterinary Practice News; 2013. 25(2):34.
Publisher
BowTie News
Location of Publisher
Irvine
Country of Publication
USA
Publication Type
Journal article.

<132>

Accession Number
20133159132
Author
Bloor, C.
Title
Urinary tract disorders in cats: veterinary nursing essentials.
Source
VN Times; 2013. 13(5):20, 22. 9 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<133>
Accession Number
20133212131
Author
White, J. D.; Stevenson, M.; Malik, R.; Snow, D.; Norris, J. M.
Title
Urinary tract infections in cats with chronic kidney disease.
Source
Journal of Feline Medicine and Surgery; 2013. 15(6):459-465. 25 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract
Routine urine cultures were performed in cats with chronic kidney disease (CKD) to assess the overall prevalence and clinical signs associated with a positive urine culture (PUC). An occult urinary tract infection (UTI) was defined as a PUC not associated with clinical signs of lower urinary tract disease or pyelonephritis. Multivariate logistic and Cox proportional hazard regression models were used to evaluate the risk factors for an occult UTI and its relationship with survival. There were 31 PUCs from 25 cats. Eighty-seven percent of PUCs had active urine sediments. The most common infectious agent was Escherichia coli and most bacteria were sensitive to amoxicillin-clavulanate. Eighteen of 25 cats had occult UTIs. Among cats with occult UTI, increasing age in female cats was significantly associated with PUC; no significant association between occult UTI and survival was found and serum creatinine was predictive of survival in the short term (200 days) only. In conclusion, among cats with CKD, those with occult UTI were more likely to be older and female, but there was no association with severity of azotaemia. The presence of an occult UTI, when treated, did not influence survival.
Publication Type
Journal article.

<134>
Accession Number
20133211942
Author
Kerr, K. R.
Title
Dietary management of feline lower urinary tract symptoms.
Source
Journal of Animal Science; 2013. 91(6):2965-2975.
Publisher
American Society of Animal Science
Location of Publisher
Savoy
Country of Publication
USA
Abstract
Experimental and clinical investigations have confirmed the importance of dietary modifications in medical protocols designed to treat and prevent feline lower urinary tract signs (LUTS). The objective of this review is to discuss common medical conditions contributing to feline LUTS and to present currently used and potential preventative dietary modifications. Feline LUTS are a set of clinical conditions with similar symptoms related to inappropriate urine elimination due to a combination of genetics, stress and frustration reactions, environment, and medical condition or conditions, for example, idiopathic cystitis, urolithiasis, urethral obstruction, and urinary tract infection. The main goals of dietary modifications to prevent LUTS are (1) promote large dilute volumes of urine, (2) decrease the relative supersaturation of urine for specific stone types, and (3) promote healthy bacterial populations in the gastrointestinal and urogenital tracts. The impact of dietary composition, including dietary moisture, protein concentration and digestibility, mineral concentrations (i.e., Na, Cl, Ca, P, and Mg), inclusion of acidifiers and alkalinizing agents, inclusion of vitamin B6, eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), and gamma -linolenic acid, fiber concentration and characteristics, and oxalate degrading probiotics, on these outcomes is discussed, and dietary guidelines for cats are provided. Because of the complex interaction of diet composition, environment, and animal physiology, there is a need for clinical research linking current recommendations or dietary options for the treatment and prevention of LUTS with physiological outcomes (i.e., decreased relative supersaturation and LUTS recurrence). Additionally, for many recommendations (e.g., probiotic administration, EPA, DHA), extrapolation from other species was necessary. Research is needed in feline patients with LUTS on these dietary components.
Publication Type
Journal article
Conference paper.

<135>
Accession Number
20133229593
Author
Jaturakan, O.; Vanichwatanaramlouk, M.; Kornkaew, A.; Trisiriroj, M.; Chansaisakorn, W.; Komolvanich, S.; Tachampa, K.; Buranakarl, C.
Title
SDS-PAGE electrophoresis for urinary protein analysis in dogs with chronic kidney disease and urinary tract infection.
Source
Thai Journal of Veterinary Medicine; 2013. 43(1):75-83. 37 ref.
Publisher
Faculty of Veterinary Science, Chulalongkorn University

Location of Publisher
Bangkok
Country of Publication
Thailand
Abstract
The objective of the present study was to investigate urinary protein profiles in dogs with chronic kidney disease (CKD) in comparison to dogs with urinary tract infection (UTI). Animals were divided into 4 groups: control, CKD stages II+III, CKD stage IV and UTI. Blood pressure was measured using oscillometric method. Blood was collected for determinations of packed cell volume (PCV), blood urea nitrogen (BUN) and plasma creatinine concentrations. Urine was collected for urinalysis and protein determination. Total urinary proteins were measured using semi-quantitative method by precipitation with sulfosalicylic acid and a standard SDS-polyacrylamide gel electrophoresis (SDS-PAGE) which were presented as urinary protein creatinine (UPC) ratio and electrophoresis urinary total protein creatinine (E-UTPC) ratio, respectively. The protein of high molecular weight (HMW) (>67 kDa), middle molecular weight (MMW) (66-67 kDa) and low molecular weight (LMW) (<66 kDa) were determined. The results showed that blood pressure in dogs with CKD stage IV was significantly higher than the control healthy group ($p<0.05$). The PCV was lower in dogs with CKD stage IV compared with the control and UTI group ($p<0.05$). Dogs with CKD stage II+III or IV had significantly higher UPC ratio and E-UTPC ratio ($p<0.05$) compared with the control group. Although dogs with UTI had higher E-UTPC ratio compared with the control group, it was lower than dogs with CKD stage IV ($p<0.05$). There were positive correlations between plasma creatinine concentration and both proteinuria (HHW; $p<0.01$ and MMW; $p<0.05$) and mean arterial blood pressure ($p<0.05$). The urinary protein distributions in CKD groups were similar to UTI. It is concluded that although the proteinuria in CKD was higher than UTI, the degree and pattern of urinary protein with different molecular weight could not be used to distinguish between CKD and UTI in dogs.
Publication Type
Journal article.

<136>
Accession Number
20133225406
Author
Chew, D. J.; Richardson, R.
Title
Canine urinary tract infections: diagnosis and treatment strategies.
Source
Small Animal and Exotics Proceedings. North American Veterinary Conference, Orlando, Florida, USA, 19-23 January 2013.; 2013. :unpaginated. 22 ref.
Publisher
North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<137>
Accession Number

20133414508
Author
Lund, H. S.; Krontveit, R. I.; Halvorsen, I.; Eggertsdottir, A. V.
Title
Evaluation of urinalyses from untreated adult cats with lower urinary tract disease and healthy control cats: predictive abilities and clinical relevance.
Source
Journal of Feline Medicine and Surgery; 2013. 15(12):1086-1097. 43 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract
This case-controlled study evaluated urinalyses from 111 primary cases diagnosed with feline lower urinary tract disease (FLUTD) and 101 healthy control cats. Urine samples were analysed by standardised procedures, and differences between the two groups were compared by multivariable logistic regression analysis, while controlling for age, body weight, gender and reproductive status. Further, the ability of using urine sediment findings to predict bacteriuria was evaluated. In addition, urinalyses from cats with bacterial cystitis, idiopathic cystitis, urolithiasis and urethral plugs were compared. The main findings were that increasing body weight was significantly associated with increased odds of FLUTD, while the influence of age and reproductive status was of less importance. Increasing amounts of red blood cells and epithelial cells were significantly associated with increased odds of FLUTD. The predictive ability of using bacterial sediment findings to predict bacterial growth was dependent on subjective grading of the amount of bacteria in the sediment and was, at best, only moderate. The few significant differences found between the different FLUTD diagnoses were of limited diagnostic value.
Publication Type
Journal article.

<138>
Accession Number
20123038780
Author
Habrun, B.; Kompes, G.; Spicic, S.; Racic, I.; Cvetnic, Z.
Title
Bacterial agents, antimicrobial sensitivity and therapy for urinary infections of dogs and cats. [Croatian]
Source
Veterinarska Stanica; 2011. 42(6):497-504. 13 ref.
Publisher
Hrvatski Veterinarski Institut, Centar za Peradarstvo
Location of Publisher
Zagreb
Country of Publication
Croatia
Abstract
Bacterial infections are the most common cause of urinary infections in dogs and cats. The proper sampling of urine, storage after sampling and delivery to the laboratory are of crucial importance for an accurate diagnosis of a urinary tract infection. The most reliable evidence of a urinary infection is the urine culture test. In addition to isolating the bacterial agent, the number of bacteria per millilitre is also determined. In addition to isolating the agent, it is also important to determine the sensitivity of the bacteria, in order to administer effective therapy. Therapy in non-complicated urinary infections should last 2 weeks, while for complicated

infections, therapy should continue for 4 to 6 weeks. This paper presents the results of 62 dog urine samples, of which 41 samples were bacteriologically positive, and 13 cat urine samples, of which 5 were bacteriologically positive. The samples primarily showed relapse infections. Bacteria isolated were: Escherichia coli (17), Staphylococcus pseudintermedius (13), Enterococcus faecium (7) and Proteus mirabilis (6). The isolated strains of E. coli and S. pseudintermedius indicated a strong development of resistance to antimicrobial medicines used to treat urinary infections. Six of the strains (46%) of S. pseudintermedius were resistant to oxacillin, meaning they likely belong to the methicillin resistant strains (MRSI) and are thus resistant to all beta-lactam antibiotics.
Publication Type
Journal article.

<139>
Accession Number
20123062340
Author
Weese, J. S.; Blondeau, J. M.; Boothe, D.; Breitschwerdt, E. B.; Guardabassi, L.; Hillier, A.; Lloyd, D. H.; Papich, M. G.; Rankin, S. C.; Turnidge, J. D.; Sykes, J. E.
Title
Antimicrobial use guidelines for treatment of urinary tract disease in dogs and cats: antimicrobial guidelines Working Group of the International Society for Companion Animal Infectious Diseases.
Source
Veterinary Medicine International; 2011. 2011:Article ID 263768. 16 ref.
Publisher
Hindawi Publishing Corporation
Location of Publisher
New York
Country of Publication
USA
Abstract
Urinary tract disease is a common reason for use (and likely misuse, improper use, and overuse) of antimicrobials in dogs and cats. There is a lack of comprehensive treatment guidelines such as those that are available for human medicine. Accordingly, guidelines for diagnosis and management of urinary tract infections were created by a Working Group of the International Society for Companion Animal Infectious Diseases. While objective data are currently limited, these guidelines provide information to assist in the diagnosis and management of upper and lower urinary tract infections in dogs and cats.
Publication Type
Journal article.

<140>
Accession Number
20123038425
Author
Freitas, L. R.; Silva, A. C. R.; Stela, A. E.; Portilho, E. F.
Title
Causative agents of urinary infections in dogs in Rio Verde-GO: occurrence and determination of antimicrobial sensitivity. [Portuguese]
Source
PUBVET; 2011. 5(26):unpaginated. 20 ref.

Publisher
F. B. Moreira
Location of Publisher
Londrina
Country of Publication
Brazil
Abstract
The urinary tract infections (UTI) occur usually when there is a temporary or permanent failure in the mechanisms of host defense and sufficient number of mainly bacteria that multiply and persist in a portion of the urinary tract. We collected 26 urine samples obtained by cystocentesis in dogs with clinical signs of UTI, in 2010, the Center for Animal Control and the Veterinary Hospital at Fesurv, located in Rio Verde-GO, with the objective to establish the rate of UTI, the etiologic agents and antibiotic susceptibility. All samples were subjected to urinalysis and urine culture to also. There were bacteriuria in 16 urinalysis and only four samples with positive culture. The identification of the bacteria was performed by traditional biochemical methods and antibiotic susceptibility by disk diffusion method. There was a higher incidence of UTI in females. Gram-negative isolates were Citrobacter sp. and Klebsiella sp. And among the Gram-positive Staphylococcus aureus, S. saprophyticus and S. epidermis were most prevalent. The antibiotic nitrofurantoin, tetracycline, cephalothin, chloramphenicol, norfloxacin, erythromycin and enrofloxacin were effective in the treatment of Gram-positive and only cephalothin and enrofloxacin in the treatment of Gram-negative bacteria. The results reinforce the need for knowledge of antimicrobial susceptibility of bacteria causing UTI, to prevent the misuse of antibiotics.
Publication Type
Journal article.

<141>
Accession Number
20123089340
Author
Kolb, H.
Title
The ultrasound in 10 steps: Normal ultrasonography of the lower urinary tract in dogs and cats. [French]
Source
Point Veterinaire; 2012. 43(323):16-19. 5 ref.
Publisher
Editions du Point Veterinaire
Location of Publisher
Maisons-Alfort
Country of Publication
France
Abstract
This article discusses the anatomy and conditions of a normal and healthy lower urinary tract in dogs and cats and presents guidelines on ultrasonographic procedures as well as tips on the interpretation of pathological images in the lower urinary tract.
Publication Type
Journal article.

<142>
Accession Number

20123139996
Author
Jadhav, R. K.; Akhilesh Kumar; Dey, S.
Title
Bacterial urinary tract infections in canines and their management.
Source
North-East Veterinarian; 2011. 11(2):29-32, 16. 3 ref.
Publisher
North-East Veterinarian
Location of Publisher
Guwahati
Country of Publication
India
Abstract
A review on the clinical importance of urinary tract infections (UTI) caused by bacteria in dogs with emphasis on host resistance, treatment management and the classification of UTI based on complexity of infections, response to treatment, and location of infection was discussed.
Publication Type
Journal article.

<143>
Accession Number
20123111522
Author
Leal, L. M.; Crivelenti, L. Z.; Cipolli, V. M. M.; Lima, T. B.; Morato, G. de O.; Moraes, P. C.
Title
Pre-pubic urethrostomy after urethral rupture in feline with urinary tract disease. [Portuguese]
Source
Clinica Veterinaria; 2012. 17(97):100-104. 16 ref.
Publisher
Editora Guara
Location of Publisher
Sao Paulo
Country of Publication
Brazil
Abstract
Feline lower urinary tract diseases are very common disorders in small animal clinics, and lead to urethral obstruction in most cases. The desobstructing maneuver can by itself cause complications ranging from small lesions to urethral rupture. This article reports the case of a four-year-old mixed breed cat with urethral disruption that underwent pre-pubic urethrostomy. Possible complications of this technique were minimized by concomitant dermoplasty and post-operative urethral catheterization, which avoided post-operative dermatitis of the abdominal adipose pads and urethral stenosis, respectively. We conclude that pre-pubic urethrostomy associated with dermoplasty and urethral catheterization was a good alternative in this case, since perineal urethrostomy could not be performed.
Publication Type
Journal article.

<144>

Accession Number
20123145633
Author
Murphy, C. P.; Reid-Smith, R. J.; Boerlin, P.; Weese, J. S.; Prescott, J. F.; Janecko, N.; McEwen, S. A.
Title
Out-patient antimicrobial drug use in dogs and cats for new disease events from community companion animal practices in Ontario.
Source
Canadian Veterinary Journal; 2012. 53(3):291-298. 20 ref.
Publisher
Canadian Veterinary Medical Association
Location of Publisher
Ottawa
Country of Publication
Canada
Abstract
This study investigated oral and parenteral antimicrobial use in dogs and cats, and evaluated antimicrobial use in feline upper respiratory tract disease (FURTD), feline lower urinary tract disease (FLUTD), and canine infectious tracheobronchitis. Study journals (n=1807) were submitted by 84 veterinarians. Sixty-five percent of the antimicrobials prescribed in dogs and 67% in cats were beta -lactams. Most frequently prescribed in dogs were cephalexin (33%) and amoxicillin-clavulanic acid (16%), and in cats, amoxicillin-clavulanic acid (40%) and cefovecin (17%); 7% of the prescriptions in dogs and 12% in cats were for fluoroquinolones. Sixty-seven percent of the disease events associated with canine infectious tracheobronchitis, and 70% and 74% associated with FURTD and FLUTD, respectively, were treated with antimicrobials. These results suggest that cefovecin and fluoroquinolones may be over-used and antimicrobial use for the treatment of FURTD, FLUTD, and canine infectious tracheobronchitis could probably be reduced to lessen resistance selection pressure without compromising patient health.
Publication Type
Journal article.

<145>
Accession Number
20123170359
Author
Lam, N. K.; Berent, A. C.; Weisse, C. W.; Bryan, C.; Mackin, A. J.; Bagley, D. H.
Title
Endoscopic placement of ureteral stents for treatment of congenital bilateral ureteral stenosis in a dog.
Source
Journal of the American Veterinary Medical Association; 2012. 240(8):983-990. 61 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
Case Description - A 5-year-old 8.6-kg (18.9-lb) spayed female Pug was evaluated because of chronic hematuria and recurrent urinary tract infections. Clinical Findings - Excretory urography, ultrasonography, and excretory CT urography were performed. Results indicated that the dog had bilateral hydronephrosis and hydroureter and suspected proximal ureteral stenosis. Retrograde ureteropyelography confirmed the presence of stenosis at the ureteropelvic junction of each ureter, along with a large amount of endoluminal ureteral debris. Clinical findings suggested that the dog had a congenital bilateral anomaly of the upper

urinary tract. Treatment and Outcome - The dog was anesthetized, and 2 double-pigtail ureteral stents were placed cystoscopically with fluoroscopic guidance for immediate relief of the ureteropelvic junction obstructions. Each stent extended from the left or right renal pelvis to the urinary bladder. The procedures and the patient's recovery from anesthesia were uncomplicated. Continuing improvements in severity of hydronephrosis, hydroureter, and dysuria were evident during routine follow-up examinations at 2, 4, 12, 16, and 45 weeks after stent placement. Over the subsequent 12 months, all clinical signs remained resolved other than a urinary tract infection that was successfully treated with antimicrobials. Clinical Relevance - Ureteral stenosis should be considered as a differential diagnosis for hydronephrosis in dogs, particularly when urinary tract calculi or neoplasia is not present. Chronic hematuria and recurrent urinary tract infections can be associated with this condition. Placement of ureteral stents may be a successful treatment option for ameliorization of congenital ureteral obstructions.
Publication Type
Journal article.

<146>
Accession Number
20123169342
Author
Kramer, S.; Kietzmann, M.; Pankow, W. R.
Title
The use of fluoroquinolones in bacterial urinary tract infections in cats.
Source
Tierarztliche Praxis. Ausgabe K, Kleintiere/Heimtiere; 2012. 40(2):113-121.
Publisher
Schattauer GmbH
Location of Publisher
Stuttgart
Country of Publication
Germany
Abstract
Older cats (>10 years) with FLUTD (Feline Lower Urinary Tract Disease) symptoms are often affected by urinary tract infections. In most of these cats organ diseases (e.g. chronic renal failure, diabetes mellitus) or iatrogenic factors (immunosuppressive drugs, indwelling catheter) are found that clearly predispose cats to this kind of infection. From a diagnostic point of view, urinalysis and urine culture are the most important tools in detecting bacteriuria. The microbiological spectrum is thereby comparable to that found in dogs, revealing Escherichia (E.) coli but also Staphylococcus spp. and Enterococcus spp./Streptococcus spp. Antibiotic therapy should be based on the results of susceptibility testing. If this kind of information is not available, drug selection has to be decided on an empirical basis unless it is a complicated urinary tract infection. Preferred antibiotics should have a high renal excretion rate and thus ensure therapeutically effective drug levels in the urine. In this respect, the fluoroquinolones belong to the group of appropriate drugs to be used in cats. The relevance of therapeutical drug concentrations achievable in the urine is discussed for the example of marbofloxacin, a third-generation fluoroquinolone. New pharmacokinetic data showed that marbofloxacin concentrations of >=2 micro g/ml are maintained in the urine of healthy cats for 72 and 103 hours after administration of 2 and 4 mg/kg BW s.c., respectively.
Publication Type
Journal article.

<147>

Accession Number
20123180268
Author
Westropp, J. L.; Sykes, J. E.; Irom, S.; Daniels, J. B.; Smith, A.; Keil, D.; Settje, T.; Wang, Y.; Chew, D. J.
Title
Evaluation of the efficacy and safety of high dose short duration enrofloxacin treatment regimen for uncomplicated urinary tract infections in dogs.
Source
Journal of Veterinary Internal Medicine; 2012. 26(3):506-512. 38 ref.
Publisher
Wiley-Blackwell
Location of Publisher
Boston
Country of Publication
USA
Abstract
Background: Uncomplicated urinary tract infections (UTI) in dogs usually are treated with antimicrobial drugs for 10-14 days. Shorter duration antimicrobial regimens have been evaluated in human patients. Hypothesis: A high dose short duration (HDSD) enrofloxacin protocol administered to dogs with uncomplicated UTI will not be inferior to a 14-day treatment regimen with amoxicillin-clavulanic acid. Animals: Client-owned adult, otherwise healthy dogs with aerobic bacterial urine culture yielding >=103 CFU/mL of bacteria after cystocentesis. Methods: Prospective, multicenter, controlled, randomized blinded clinical trial. Enrolled dogs were randomized to group 1 (enrofloxacin 18-20 mg/kg PO q24h for 3 days) or group 2 (amoxicillin-clavulanic acid 13.75-25 mg/kg PO q12h for 14 days). Urine cultures were obtained at days 0, 10, and 21. Microbiologic and clinical cure rates were evaluated 7 days after antimicrobial treatment was discontinued. Lower urinary tract signs and adverse events also were recorded. Results: There were 35 dogs in group 1 and 33 in group 2. The microbiologic cure rate was 77.1 and 81.2% for groups 1 and 2, respectively. The clinical cure rate was 88.6 and 87.9% for groups 1 and 2, respectively. Cure rates between groups did not differ according to the selected margin of noninferiority. Conclusions and Clinical Importance: HDSD enrofloxacin treatment was not inferior to a conventional amoxicillin-clavulanic acid protocol for the treatment of uncomplicated bacterial UTI in dogs. Further research is warranted to determine if this protocol will positively impact owner compliance and decrease the emergence of antimicrobial resistance.
Publication Type
Journal article.

<148>
Accession Number
20123161354
Author
Sant, R.
Title
Approaches to dealing with FLUTD.
Source
Veterinary Times; 2012. 42(19):22, 24. 6 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<149>
Accession Number
20123186666
Author
Peterson, A. L.; Torres, S. M. F.; Rendahl, A.; Koch, S. N.
Title
Frequency of urinary tract infection in dogs with inflammatory skin disorders treated with ciclosporin alone or in combination with glucocorticoid therapy: a retrospective study.
Source
Veterinary Dermatology; 2012. 23(3):205, e42-e43. 17 ref.
Publisher
Wiley-Blackwell
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Background - Few studies have investigated the frequency of urinary tract infection (UTI) in dogs receiving long-term ciclosporin therapy. Hypothesis/Objectives - The goal of the study was to investigate the frequency of UTI in dogs receiving ciclosporin with or without glucocorticoids. A secondary goal was to determine whether bacteriuria, pyuria and urine specific gravity were good predictors of UTI, and if ciclosporin dose, concurrent ketoconazole therapy, sex or duration of therapy affected the frequency of UTI. Animals - Eighty-seven dogs with various inflammatory skin disorders and 59 control dogs with inflammatory skin conditions that had not received glucocorticoids or ciclosporin for 6 months were enrolled. Methods - This study was retrospective. The first urine culture from dogs receiving ciclosporin was compared with control dogs using Fisher's exact test. A logistic mixed model was used to test for association between a positive bacterial culture and duration of treatment, dose of ciclosporin, concurrent ketoconazole therapy and sex. The sensitivities and specificities for bacteriuria, pyuria and urine specific gravity were determined. Results - Twenty-six of 87 (30%) ciclosporin-treated dogs had at least one positive culture. Compared with 3% positive control samples, 15% were positive in treated dogs (P=0.027). The sensitivity and specificity were, respectively, 64.1 and 98.1% for bacteriuria, 74.4 and 70.9% for pyuria, and 56.4 and 65.3% for urine specific gravity. All other analysed parameters were not significantly different. Conclusions and clinical importance - The results suggest that routine urine cultures and assessment of bacteriuria by cystocentesis should be part of the monitoring for dogs on long-term ciclosporin with and without glucocorticoids.
Publication Type
Journal article.

<150>
Accession Number
20123199744
Author
Ulrich, U.
Title
Biologic treatment of cats with diseases of the lower urinary tract (FLUTD). [German]
Source
Biologische Tiermedizin; 2012. 29(1):5-12. 39 ref.
Publisher

Aurelia-Verlag GmbH
Location of Publisher
Baden-Baden
Country of Publication
Germany
Abstract
Diseases of the lower urinary tract in cats (FLUTD) manifest themselves with a variable combination of the guiding symptoms hematuria, dysuria, stranguria, pollakisuria and sometimes urethral obstruction. The most frequent reason for FLUTD is an idiopathic cystitis, followed by urolithiasis and bacterial infections of the urinary tract For the therapy of FLUTD cats, different approaches are recommended in literature, covering different aspects of the disease. Stress and dietetic factors which can be involved in the development of the disease should be considered in the treatment. Regardless of the type of FLUTD, the use of the combination of Cantharis compositum ad us. vet. Mucosa compositum ad us. vet. and Traumeel ad us. vet. which covers a number of factors involved in the disease complex is well proven. The combination can be accompanied by further indicated conventional or biological remedies. Case examples out of a number of some 50 cats which have been treated with the combination in the last three years are presented.
Publication Type
Journal article.

<151>
Accession Number
20123241273
Author
Chew, D. J.; Westropp, J. L.
Title
Management and dosing strategies for difficult canine urinary tract infections.
Source
Small Animal and Exotics Proceedings. Book One: Alternative medicine - Ophthalmology. North American Veterinary Conference, Orlando, Florida, USA, 14-18 January 2012. Volume 26; 2012. :unpaginated. 16 ref.
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<152>
Accession Number
20123241254
Author
KuKanich, K.
Title
Hospital-acquired infections.
Source
Small Animal and Exotics Proceedings. Book One: Alternative medicine - Ophthalmology. North American Veterinary Conference, Orlando, Florida, USA, 14-18 January 2012. Volume 26; 2012. :unpaginated. 8 ref.

Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<153>
Accession Number
20123226208
Author
Chew, D. J.
Title
Diagnosis and treatment of simple and recurrent urinary tract infections.
Source
BSAVA Congress 2012, The ICC/NIA, Birmingham, UK, 11-15 April, 2012. Scientific Proceedings Veterinary Programme; 2012. :170-171.
Publisher
British Small Animal Veterinary Association
Location of Publisher
Quedgeley
Country of Publication
UK
Publication Type
Conference paper.

<154>
Accession Number
20123260865
Author
Thompson, M. F.; Schembri, M. A.; Mills, P. C.; Trott, D. J.
Title
A modified three-dose protocol for colonization of the canine urinary tract with the asymptomatic bacteriuria Escherichia coli strain 83972.
Source
Veterinary Microbiology; 2012. 158(3/4):446-450. 9 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Establishment of asymptomatic bacteriuria is a novel alternative to antimicrobial therapy for management of recurrent bacterial urinary tract infection in humans and may also be useful for dogs if it can be shown that colonization of the canine bladder can be achieved. A three-dose protocol for Escherichia coli strain 83972

inoculation was developed to attempt induction of persistent bacteriuria in healthy dogs. A previous study using a single inoculation colonized dogs for no longer than 10 days and multi-dose protocols have been used to establish persistent bacteriuria in human patients. Three doses of approximately 109E. coli 83972 bacteria were introduced into the bladder of eight healthy female dogs over 24 h via an indwelling sterile urinary catheter. Three additional dogs were sham-inoculated. Duration of colonization ranged from 1 to 28 days (median 2 days) with no discernible reason for the prolonged colonization in one dog. Multi-dose inoculation of healthy dogs was not obviously superior to our previous use of single-dose inoculation apart from one dog remaining colonized for 28 days following the three-dose inoculation protocol.
Publication Type
Journal article.

<155>
Accession Number
20123245086
Author
Santa Rosa, L. S. de; Terra, V. J. B.
Title
Lower urinary tract disease in feline. [Portuguese]
Source
PUBVET; 2011. 5(40):unpaginated. many ref.
Publisher
F. B. Moreira
Location of Publisher
Londrina
Country of Publication
Brazil
Abstract
This paper discusses the management of lower urinary tract diseases in cats focusing on its aetiological factors and several therapy/treatment available for the veterinary practitioner.
Publication Type
Journal article.

<156>
Accession Number
20123278824
Author
Kralova-Kovarikova, S.; Husnik, R.; Honzak, D.; Kohout, P.; Fictum, P.
Title
Stenotrophomonas maltophilia urinary tract infections in three dogs: a case report.
Source
Veterinarni Medicina; 2012. 57(7):380-383. 15 ref.
Publisher
Institute of Agricultural Economics and Information
Location of Publisher
Prague
Country of Publication
Czech Republic
Abstract

Stenotrophomonas maltophilia was isolated from three dogs with lower urinary tract disorders. The bacterium was cultured from bladder wall biopsy specimens obtained during cystoscopy, whereas urine culture was negative in all cases. The culture of biopsy specimens is useful and may help with the therapy even if diagnosis of the primary disease has been made.
Publication Type
Journal article.

<157>
Accession Number
20123335379
Author
Martinez-Ruzafa, I.; Kruger, J. M.; Miller, R.; Swenson, C. L.; Bolin, C. A.; Kaneene, J. B.
Title
Clinical features and risk factors for development of urinary tract infections in cats.
Source
Journal of Feline Medicine and Surgery; 2012. 14(10):729-740. 37 ref.
Publisher
Sage Publications
Location of Publisher
Thousand Oaks
Country of Publication
USA
Abstract
The clinical and diagnostic features of 155 cats with urinary tract infection (UTI) and 186 controls with negative urine culture/s were characterized retrospectively (signalment, clinical signs, urinalysis, urine culture, concurrent diseases, lower urinary tract diagnostic/therapeutic procedures). Multivariable logistic regression was used to identify risk factors associated with UTI. Cats of all ages were affected by UTI with no sex/breed predisposition. Lower urinary tract signs were absent in 35.5% of cats with UTI. Pyuria and bacteriuria had sensitivities of 52.9% and 72.9%, and specificities of 85.5% and 67.7% for detection of UTI, respectively. Risk factors significantly associated with increased odds of UTI were urinary incontinence [odds ratio (OR)=10.78, P=0.0331], transurethral procedures (OR=8.37, P<0.0001), urogenital surgery (OR=6.03, P=0.0385), gastrointestinal disease (OR=2.62, P=0.0331), decreased body weight (OR=0.81, P=0.0259) and decreased urine specific gravity (OR=0.78, P=0.0055). Whilst not independently significant, renal disease and lower urinary tract anatomic abnormalities improved statistical model performance and contributed to UTI.
Publication Type
Journal article.

<158>
Accession Number
20123320933
Author
Woolf, K.
Title
Feline lower urinary tract disease: predisposition, causes and nursing care.
Source
The Veterinary Nurse; 2012. 3(7):406-412. 20 ref.
Publisher

MA Healthcare Limited
Location of Publisher
London
Country of Publication
UK
Abstract
Feline lower urinary tract disease (FLUTD) is a common problem in veterinary practice. The causes of and predispositions to FLUTD are often misunderstood and this can lead to recurrence within patients. Sex, weight, diet and stress have all been suggested as factors that increase the risk of a cat developing FLUTD. Males would appear to be more predisposed to FLUTD than females and are regularly over represented in studies of FLUTD cats. Obesity also seems to be a predisposing factor with larger cats more likely to experience FLUTD. However cats that are fed a dry diet do not appear to be significantly more likely to develop FLUTD when compared to those fed a wet diet. Stress would seem to be the most significant inciting factor in the recurrence of FLUTD with much research conducted in this area.
Publication Type
Journal article.

<159>
Accession Number
20123387365
Author
Bijelic, J.
Title
Urolithiasis in dogs - types of uroliths, diagnostics and treatment. [Croatian]
Source
Veterinarska Stanica; 2012. 43(5):417-421. 12 ref.
Publisher
Hrvatski Veterinarski Institut, Centar za Peradarstvo
Location of Publisher
Zagreb
Country of Publication
Croatia
Abstract
The incidence of clinically significant uroliths is increasing in dogs. The formation and composition of uroliths may be influenced by a variety of factors, including species, breed, sex, age, diet, anatomical abnormalities, urinary tract infection, medication, and urine pH. Confirmation of the diagnosis may require urinalysis, quantitative urine culture, ultrasonography, and radiography. Nonspecific therapy includes augmentation of water consumption, while specific therapy is based on urolith composition. Nephroliths are commonly composed of calcium oxalate and these stones usually require surgical removal. Struvite is one of the most common minerals found in canine uroliths and a prerequisite for their formation is the oversaturation of urine with magnesium ammonium phosphate. Calcium oxalate uroliths, the most common type in humans, are becoming increasingly prevalent in dogs. Cystinuria is an inborn metabolic disease characterized by excessive urinary excretion of cystine and the dibasic amino acids lysine, arginine, and ornithine, though the exact mechanism of cystine urolith formation remains unknown. Urate uroliths, which are relatively uncommon in dogs, are typically comprised of ammonium acid urate (also known as ammonium urate), although some may be composed of sodium acid urate and uric acid.
Publication Type
Journal article.

<160>
Accession Number
20113025882
Author
Mahlum, L. M.; Rollings, C.; Basseches, J.; Bracker, K.
Title
Presumptive pseudohypoaldosteronism secondary to chronic urinary tract obstruction from sloughed urinary bladder mucosa and urinary tract infection in a cat.
Source
Journal of Veterinary Emergency and Critical Care; 2010. 20(6):601-610. 38 ref.
Publisher
Blackwell Publishing Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Objective - To describe a case of presumptive secondary pseudohypoaldosteronism (PHA) in a cat with urinary tract infection and chronic urethral obstruction. The obstruction was believed to have resulted from sloughed urinary bladder mucosa secondary to pressure necrosis. Case Summary - A 5-year-old, 4kg, castrated male Siamese cat presented for vomiting and stranguria. Medical history included a perineal urethrostomy for urethral obstruction. Physical examination revealed a large, painful, nonexpressible urinary bladder. Point-of-care testing demonstrated electrolyte derangements consistent with a postrenal azotemia and metabolic acidosis. Results of urine culture was positive for bacterial growth. Diagnostic imaging revealed presence of retroperitoneal fluid, marked urinary bladder wall thickening, bilateral hydroureter, mild bilateral pyelectasia, and small nephroliths. The patient was treated for a urinary tract obstruction and infection. In the 3 weeks following initial discharge, the patient was evaluated on multiple occasions for lethargy, intermittent vomiting, inappropriate urination, and progressive polyuria and polydipsia. Although the urinary bladder was easily expressed during repeat examinations, it was persistently distended and subjectively thickened upon palpation. Repeat ultrasound of the urinary tract showed evidence of sloughed tissue in the bladder lumen, likely secondary to chronic urethral obstruction and pressure necrosis. A cystotomy was performed to remove the necrotic tissue, and a revised perineal urethrostomy was done due to a partial urethral stricture. Bladder biopsies were obtained at this time. Postoperatively, the cat was reported by the owners to be urinating normally but continued to be polyuric and polydipsic in the week following discharge. One week after surgery, the cat presented in hypovolemic shock with laboratory findings consistent with a presumptive diagnosis of secondary PHA. New or Unique Information Provided - PHA has not been reported previously in a cat. This case report suggests that aldosterone resistance should be considered in cats with consistent laboratory findings and a history of documented obstructive uropathy and urinary tract infection.
Publication Type
Journal article.

<161>
Accession Number
20113025393
Author
Thompson, M. F.; Totsika, M.; Schembri, M. A.; Mills, P. C.; Seton, E. J.; Trott, D. J.
Title
Experimental colonization of the canine urinary tract with the asymptomatic bacteriuria Escherichia coli strain 83972.
Source

Veterinary Microbiology; 2011. 147(1/2):205-208. 19 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Establishment of asymptomatic bacteriuria (ABU) with Escherichia coli 83972 is a viable prophylactic alternative to antibiotic therapy for the prevention of recurrent bacterial urinary tract infection in humans. Approximately 2x108 viable E. coli 83972 cells were introduced into the bladder of six healthy female dogs via a sterile urinary catheter. The presence of pyuria, depression, stranguria, pollakiuria and haematuria was documented for 6 weeks and urinalysis and aerobic bacterial cultures were performed every 24-72 h. Pyuria was present in all dogs on day 1 post-inoculation and 4/6 dogs (67%) had a positive urine culture on this day. Duration of colonization ranged from 0 to 10 days (median 4 days). Four dogs were re-inoculated on day 20. Duration of colonization following the second inoculation ranged from 1 to 3 days. No dog suffered pyrexia or appeared systemically unwell but all dogs initially exhibited mild pollakiuria and a small number displayed gross haematuria and/or stranguria. By day 3 of each trial all clinical signs had resolved. Persistent bacteriuria was not achieved in any dog but two dogs were colonized for 10 days following a single inoculation. Further research is required to determine whether establishment of ABU in dogs with recurrent urinary tract infection is a viable alternative to repeated doses of antimicrobial agents.
Publication Type
Journal article.

<162>
Accession Number
20113067604
Author
Litster, A.; Thompson, M.; Moss, S.; Trott, D.
Title
Feline bacterial urinary tract infections: an update on an evolving clinical problem.
Source
Veterinary Journal; 2011. 187(1):18-22. 49 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Although feline urine is increasingly submitted for bacterial culture and susceptibility testing as part of a more general diagnostic work-up for a range of presentations in veterinary practice, bacterial urinary tract infections (UTIs) are relatively uncommon due to a variety of physical and immunological barriers to infection. Culture positive urine is most often obtained from older female cats and the clinical history may include hematuria, dysuria and pollakiuria, or the infection may be occult. Urinalysis usually reveals hematuria and pyuria, and Escherichia coli and Gram-positive cocci are cultured most frequently. Most feline UTIs can be successfully treated using oral amoxicillin or amoxicillin/clavulanic acid administered for at least 14 days, but the prevalence of antimicrobial resistance amongst infecting bacterial species is a growing concern. There is currently no conclusive information on the safety and efficacy of alternative therapeutic agents for the treatment of feline UTIs.
Publication Type
Journal article.

<163>
Accession Number
20113101236
Author
Green, T. A.; Arble, J. B.; Chew, D. J.; Dudley, R. M.
Title
Diagnosis and management of ureteroceles in two female dogs.
Source
Journal of the American Animal Hospital Association; 2011. 47(2):138-144.
Publisher
American Animal Hospital Association
Location of Publisher
Denver
Country of Publication
USA
Abstract
Two intact female dogs were examined for refractory pollakiuria and stranguria. One of these two dogs also exhibited urinary incontinence. Ectopic ureteroceles were diagnosed via ultrasonography and cystoscopy in both dogs. Both dogs were taken to surgery for ureterocele resection and neoureterostomy, resulting in complete resolution of clinical signs. Although uncommonly reported in the veterinary literature, ectopic ureteroceles can be associated with recurrent lower urinary tract infection with and without urinary incontinence. With a correct diagnosis and appropriate treatment, prognosis for ectopic ureteroceles can be good provided there is not a concurrent significant loss of renal function.
Publication Type
Journal article.

<164>
Accession Number
20113124817
Author
Rubin, J. E.; Gaunt, M. C.
Title
Urinary tract infection caused by methicillin-resistant Staphylococcus pseudintermedius in a dog.
Source
Canadian Veterinary Journal; 2011. 52(2):162-164. 15 ref.
Publisher
Canadian Veterinary Medical Association
Location of Publisher
Ottawa
Country of Publication
Canada
Abstract
A young neutered male pug dog was presented for evaluation of acute onset pollakiuria and hematuria. Culture and susceptibility testing of urine identified a methicillin-resistant Staphylococcus pseudintermedius, which was susceptible to only tetracycline among commonly used antimicrobials. Treatment with doxycycline led to bacteriological cure and resolution of clinical signs.
Publication Type

Journal article.

<165>
Accession Number
20113143646
Author
Bedwell-Wilson, W.
Title
Interpreting the signs of FLUTD.
Source
Veterinary Practice News; 2011. 23(5):22.
Publisher
BowTie News
Location of Publisher
Irvine
Country of Publication
USA
Publication Type
Journal article.

<166>
Accession Number
20113136358
Author
Herrtage, M. E.
Title
Ultrasonographic examination of the urinary tract.
Source
BSAVA Congress 2011, The ICC/NIA, Birmingham, UK, 31 March - 3 April. Scientific Proceedings Veterinary Programme; 2011. :13-15.
Publisher
British Small Animal Veterinary Association
Location of Publisher
Quedgeley
Country of Publication
UK
Publication Type
Book chapter
Conference paper.

<167>
Accession Number
20113153085
Author

Caney, S.
Title
Pathogenesis and treatment of feline lower urinary tract disease.
Source
VN Times; 2011. 11(5):12, 14. 6 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<168>
Accession Number
20113161768
Author
Adams, L. G.
Title
Recurrent urinary tract infections.
Source
Small animal and exotics. Proceedings of the North American Veterinary Conference, Orlando, Florida, USA, 15-19 January 2011; 2011. :815-817. 10 ref.
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<169>
Accession Number
20113161744
Author
Daniels, J. B.; Chew, D. J.
Title
Diagnosis and treatment of routine and difficult urinary infections in dogs.
Source
Small animal and exotics. Proceedings of the North American Veterinary Conference, Orlando, Florida, USA, 15-19 January 2011; 2011. :829-831.
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication

USA
Publication Type
Conference paper.

<170>
Accession Number
20113184306
Author
Arp, D.
Title
Breaking the cycle of recurrent urinary tract infection.
Source
Veterinary Practice News; 2011. 23(6):24.
Publisher
BowTie News
Location of Publisher
Irvine
Country of Publication
USA
Publication Type
Journal article.

<171>
Accession Number
20113219120
Author
Saevik, B. K.; Trangerud, C.; Ottesen, N.; Sorum, H.; Eggertsdottir, A. V.
Title
Causes of lower urinary tract disease in Norwegian cats.
Source
Journal of Feline Medicine and Surgery; 2011. 13(6):410-417. 39 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
A study was made on causes of lower urinary tract disease in cats, and to investigate whether demographic data and factors related to husbandry might influence the occurrence of a particular diagnosis. The study was a prospective, descriptive, and analytical study of primary cases of feline lower urinary tract disease (FLUTD) in Norway. Only cats sampled by cystocentesis were included in the present study. Of the 119 cats included, 28.6% were diagnosed with obstructive FLUTD. The majority of cats were diagnosed with feline idiopathic cystitis (FIC) (55.5%). Urethral plugs were the second most common diagnosis (21.0%), whereas bacterial cystitis and urolithiasis each were diagnosed in 11.8%. Nearly one-third (28.6%) of the cats diagnosed with urolithiasis had significant bacteriuria. Thus, significant bacteriuria was diagnosed in a total of 15.1% of the cats. There were no significant differences in the urine specific gravity, pH and amount of epithelial cells in the urine sediment in the different aetiological categories of FLUTD. There was a higher

amount of red blood cells in the urine sediment in cats diagnosed with urethral plugs and urolithiasis, whereas cats with bacterial cystitis and urolithiasis had a higher amount of white blood cells in their sediment. Regarding demographic data and factors related to husbandry, cats diagnosed with FLUTD were more often males and kept strictly indoors, when compared with a 'reference population'.
Publication Type
Journal article.

<172>
Accession Number
20113247972
Author
Ishii, J. B.; Freitas, J. C.; Arias, M. V. B.
Title
Resistance of bacteria isolated from dogs and cats at Veterinary Hospital of Universidade Estadual de Londrina (2008-2009). [Portuguese]
Source
Pesquisa Veterinaria Brasileira; 2011. 31(6):533-537. 24 ref.
Publisher
Colegio Brasileiro de Patologia Animal
Location of Publisher
Rio de Janeiro
Country of Publication
Brazil
Abstract
The bacterial resistance profile was studied in several disorders affecting dogs and cats treated at the Small Animals Surgical Clinics Division of Veterinary Hospital of Universidade Estadual de Londrina. The disorders etiologic agents recovered were identified and Staphylococcus spp. was the most prevalent (27.6%), followed by Pseudomonas spp. (22.7%) and Escherichia coli (16.6%). In the antimicrobial susceptibility test using agar diffusion method, there was a high percentage of resistance to main antibiotics used to treat urinary tract infections, especially of Gram negative bacteria, which showed over 66% resistance to the antibiotics tested, except for norfloxacin. In wounds, only gentamicin and amikacin had resistance rates less than 50.0%. In otological disorders, less resistance to norfloxacin and higher to neomycin, and lower rates of resistance in Gram positive bacteria were observed. In the orthopedic cases, the Gram positive bacteria showed higher resistance to ciprofloxacin, and in peritonitis was found 100% resistance to various antibiotics. This study emphasizes the importance of bacterial identification and implementation of testing of susceptibility to antibiotics to choose the appropriate antimicrobial agent in the treatment of the major diseases seen in this field of small animal veterinary medicine.
Publication Type
Journal article.

<173>
Accession Number
20113341875
Author
Bartges, J. W.
Title
New guidance for treating bacterial UTIs.
Source

Veterinary Medicine; 2011. 106(9):434. 3 ref.
Publisher
Advanstar Communications Inc
Location of Publisher
Duluth
Country of Publication
USA
Abstract
This article discusses the guidelines for diagnosing and managing urinary tract infections (UTI) in cats. The guidelines provide recommendations for the diagnosis and antimicrobial treatment of simple and complicated bacterial UTI, pyelonephritis and UTI caused by multi-drug resistant bacterial organisms. Recommended dosages for antimicrobial agents are also presented.
Publication Type
Journal article.

<174>
Accession Number
20113322529
Author
Lalor, S. M.
Title
Feline lower urinary tract disease and purina veterinary diets (R) feline UR St/OxTM.
Source
The Veterinary Nurse; 2011. 2(7):388-393. 14 ref.
Publisher
MA Healthcare Limited, Quay Books Division
Location of Publisher
London
Country of Publication
UK
Abstract
Feline lower urinary tract disease is a common condition. The most common causes are feline idiopathic cystitis and urinary stones (urolithiasis). Both of these conditions often require long-term treatment to prevent or reduce recurrences. Environmental modification and dietary management play key roles in the management. Feline UR St/OxTM is designed to assist in the management of feline idiopathic cystitis and struvite and calcium oxalate urolithiasis.
Publication Type
Journal article.

<175>
Accession Number
20113354539
Author
Kieves, N. R.; Novo, R. E.; Martin, R. B.
Title
Vaginal resection and anastomosis for treatment of vestibulovaginal stenosis in 4 dogs with recurrent urinary tract infections.
Source

Journal of the American Veterinary Medical Association; 2011. 239(7):972-980. 15 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
Case Description - 4 dogs were evaluated because of recurrent urinary tract infections. Clinical Findings - All dogs had recurrent urinary tract infections and similar clinical signs; 3 dogs had urinary incontinence. Digital vaginal examination revealed vestibulovaginal stenosis in all dogs, which was confirmed by results of contrast vaginourethrography. From image measurements, the vestibulovaginal ratio (ratio of the height of the vestibulovaginal junction to the maximum height of the vagina on a lateral vaginourethrogram) was calculated for each dog. Three dogs had severe stenosis (vestibulovaginal ratio, <0.20; severe stenosis is defined as a vestibulovaginal ratio <0.20), whereas the fourth dog had moderate stenosis (vestibulovaginal ratio, 0.24; ratio range for moderate stenosis is 0.20 to 0.25). Treatment and Outcome - All dogs were anesthetized for surgical correction of the vestibulovaginal stenosis. Vaginal resection and anastomosis of the stenosis was performed in all 4 dogs, with 1 dog also undergoing episioplasty. Complete resolution of clinical signs was apparent in 3 dogs; 1 dog had postoperative complications including pollakiuria and stranguria, which resulted in rectal and vaginal prolapse. This dog underwent ovariohysterectomy, after which clinical signs resolved. All dogs had resolution of urinary tract infections at the time of follow-up (6 to 8 months after surgery). Clinical Relevance - Resection and anastomosis may resolve recurrent urinary tract infections in dogs with severe or moderate vestibulovaginal stenosis. Episiotomy was not necessary for success of surgical treatment, and overall, that procedure increased morbidity, the severity of intraoperative hemorrhage, and duration of surgery.
Publication Type
Journal article.

<176>
Accession Number
20113372813
Author
Lemberger, S. I. K.; Deeg, C. A.; Hauck, S. M.; Amann, B.; Hirmer, S.; Hartmann, K.; Dorsch, R.
Title
Comparison of urine protein profiles in cats without urinary tract disease and cats with idiopathic cystitis, bacterial urinary tract infection, or urolithiasis.
Source
American Journal of Veterinary Research; 2011. 72(10):1407-1415. 43 ref.
Publisher
American Veterinary Medical Association
Location of Publisher
Schaumburg
Country of Publication
USA
Abstract
Objective - To characterize and compare the urine protein content in cats without urinary tract disease and cats with idiopathic cystitis (IdC), bacterial urinary tract infection (UTI), or urolithiasis. Animals - Control cats (n=18) and cats with IdC (18), UTI (12), and urolithiasis (12) from which urine samples were obtained and 2 cats with obstructive IdC and 4 additional control cats from which postmortem urinary bladder biopsy specimens were obtained. Procedures - Protein contents in urine samples obtained via cystocentesis or catheterization were measured via the Bradford method. Urine proteins were separated by means of 1-dimensional gel electrophoresis. Evaluation of fibronectin content was performed via western blotting and

immunohistochemical analysis. Urinary bladder biopsy specimens were examined histologically and analyzed immunohistochemically for fibronectin. Results - Urine fibronectin content was significantly greater in cats with IdC, compared with control cat findings. Urine fibronectin contents did not differ significantly among controls and cats with UTI or urolithiasis. Histologic examination of bladder biopsy specimens obtained from 2 cats with obstructive IdC revealed destruction of the urothelial lining of the urinary bladder and severe fibrosis; immunohistochemical analysis revealed few fluorescence signals for fibronectin, unlike findings in control bladder biopsy specimens. Conclusions and Clinical Relevance - Results indicated that urine fibronectin content in cats with IdC was greater than that in controls, cats with UTI, or cats with urolithiasis. In cats with IdC, increased permeability of damaged urothelium may result in detachment and leakage of fibronectin into urine. Urine fibronectin might serve as a biomarker for diagnosis of IdC in cats.
Publication Type
Journal article.

<177>
Accession Number
20113372729
Author
Thompson, M. F.; Litster, A. L.; Platell, J. L.; Trott, D. J.
Title
Canine bacterial urinary tract infections: new developments in old pathogens.
Source
Veterinary Journal; 2011. 190(1):22-27. many ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Uncomplicated bacterial urinary tract infections (UTIs) occur commonly in dogs. Persistent or recurrent infections are reported less frequently. They typically occur in dogs with an underlying disease and are sometimes asymptomatic, especially in dogs with predisposing chronic disease. Escherichia coli is the organism most frequently cultured in both simple and complicated UTIs. Organisms such as Enterococcus spp. and Pseudomonas spp. are less common in uncomplicated UTI, but become increasingly prominent in dogs with recurrent UTI. The ability of bacteria to acquire resistance to antimicrobials and/or to evade host immune defence mechanisms is vital for persistence in the urinary tract. Antimicrobial therapy limitations and bacterial strains with such abilities require novel control strategies. Sharing of resistant bacteria between humans and dogs has been recently documented and is of particular concern for E. coli O25b:H4-ST131 strains that are both virulent and multi-drug resistant. The epidemiology of complicated UTIs, pathogenic traits of uropathogens and new therapeutic concepts are outlined in this review.
Publication Type
Journal article.

<178>
Accession Number
20113362023
Author
Kukanich, K. S.

Title
Managing the E coli UTI.
Source
NAVC Clinician's Brief; 2011. (August):61-66.
Publisher
Educational Concepts LLC
Location of Publisher
Tulsa
Country of Publication
USA
Publication Type
Journal article.

<179>
Accession Number
20113361841
Author
Caney, S. M. A.
Title
Chronic kidney disease in cats: causes and treatment methods.
Source
Veterinary Times; 2011. 41(45):12...16. 4 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Abstract
Chronic kidney disease (CKD) is one of the most common diagnoses made in clinical practice. There are many causes of CKD, although in the majority of cases, a cause is not identifiable at the time of diagnosis. In recent years, there have been many advances in treatment options, and long-term home care can be very rewarding for all involved. Treatment aims to help patients compensate for their renal disease, allowing them to live for as long as possible, with as good a quality of life as possible. The most proven treatment is feeding a prescription renal diet, but there are many other treatments that can be beneficial to individual patients.
Publication Type
Journal article.

<180>
Accession Number
20103081070
Author
Lima, E. R.; Vasconcelos, A. T.; Almeida, E. L.; Teixeira, M. N.; Rego, E. W.; Coutinho, D. G.; Rocha Junior, M. A.
Title
Evaluation in the seric concentration of the mineral, proteins, enzymes and urinalysis in domestic cats with Lower Urinary Tract Disease. [Portuguese]
Source

Medicina Veterinaria (Brasil); 2009. 3(1):1-10. 12 ref.
Publisher
Universidade Federal Rural de Pernambuco
Location of Publisher
Recife
Country of Publication
Brazil
Abstract
Eight cats, from both sexes, of unknown breed, 2 and 4 years were divided in 2 groups, 4 males and 4 females, initially submitted to an diet industrialized dried food, considered as responsible for inducing Lower Urinary Tract Disease (LUTD). After the development of the clinical signs, a therapeutic industrialized dried food was recommended for the control of LUTD. The animals were mensally evaluated by serum concentration of the minerals, proteins, enzymes and urinary exam for 6 months. In the obtained results, the males presented significant differences for the creatinine, total protein and urinary pH versus the females for the potassium, creatinine, total protein, AST, magnesium, calcium, urea and urinary pH. It may be concluded that the use of therapeutic diet for LUTD had influence in the serum concentrations of the minerals, proteins, enzymes, in the sintomatology of the animals, in the absence of the disuria, heamaturia, crystaluria and reduction of the urinary pH.
Publication Type
Journal article.

<181>
Accession Number
20103049935
Author
Maddison, J.; Syme, H.
Title
Chronic kidney disease in dogs and cats II: principles of management.
Source
Irish Veterinary Journal; 2010. 63(2):106-109.
Publisher
Irish Veterinary Association
Location of Publisher
Dublin
Country of Publication
Irish Republic
Abstract
This paper discusses the principles of managing chronic kidney disease in dogs and cats. Focus is given on fluid therapy, management of acid-base and electrolyte imbalances, feeding of low-protein diets, sodium balance and use of ACE inhibitors and antihypertensive agents. Moreover, non-regenerative anaemia and urinary tract infection and their treatment are discussed.
Publication Type
Journal article.

<182>
Accession Number
20103121673
Author

Giovaninni, L. H.; Piai, V. dos S.
Title
Use of acupuncture in the management and therapy of feline idiopathic lower urinary tract disease. [Portuguese]
Source
Ciencia Rural; 2010. 40(3):712-717. 43 ref.
Publisher
Centro de Ciencias Rurais, Universidade Federal de Santa Maria
Location of Publisher
Santa Maria
Country of Publication
Brazil
Abstract
Several diseases may affect the feline lower urinary tract, causing unspecific signs such as haematuria, dysuria, pollakiuria, stranguria, periuria or urethral obstruction, which are clinically described as feline lower urinary tract disease (FLUTD). However, FLUTD is of unknown aetiology in up to 65% cases, named as idiopathic feline lower urinary tract disease (idiopathic FLUTD), which is a challenge to veterinarians, since there is no diagnostic nor effective treatment available. Recently, many studies have evaluated the role of neurogenic inflammation related to stress as an aetiological factor to idiopathic FLUTD. There are scientific evidences that acupuncture recuperate homeostasis, reduce stress and stimulate peripheral nerves and active endogenous antinociception mechanisms modulating the inflammatory and pain mediators' release such as substance P. The aim of this review is to describe how acupuncture may be recommended for idiopathic FLUTD therapy based on modulation of bladder neurogenic inflammation and reduction of stress in these cats.
Publication Type
Journal article.

<183>
Accession Number
20103139284
Author
Kucera, J.
Title
Effect of cephalexin, cotrimoxazole and potentiated amoxicillin in the treatment of canine urinary tract infections. [Czech]
Source
Veterinarstvi; 2010. 60(3):142-145. 8 ref.
Publisher
Profi Press, s.r.o.
Location of Publisher
Praha 5
Country of Publication
Czech Republic
Abstract
Clinical efficacy of the treatment consisting in elimination of an uropathogen from urinary tract or disappearing of Clinical signs of disease was judged in 57 dogs. These patients were treated by cephalexin, cotrimoxazole or potentiated amoxicillin due to diagnosed urinary tract infection. Cotrimoxazole and potentiated amoxicillin eliminated bacteria from urinary tract in 73, resp. 70% of cases and reached overall clinical efficacy in 81, resp. 77% patients. By means of cephalexin was bacteriologically eliminated only 36% cases of urinary tract infections, while the whole clinical efficiency of this antibiotic was 50%. Uncured cases mostly connected with a presence of complicated urinary infections.
Publication Type

Journal article.

<184>
Accession Number
20103159777
Author
Bartges, J. W.
Title
Urinary tract infections: bad bugs & bladder drugs.
Source
AAHA Long Beach 2010 Proceedings, 18-21 March, 2010. Scientific, management and technician programs; 2010. :403-407. 14 ref.
Publisher
American Animal Hospital Association
Location of Publisher
Denver
Country of Publication
USA
Publication Type
Book chapter
Conference paper.

<185>
Accession Number
20103139070
Author
Kogika, M. M.
Title
Recommendations for management of urinary tract infection in dogs.
Source
34th World Small Animal Veterinary Association Congress, Sao Paulo, Brazil, 21-24 July 2009; 2009. :unpaginated. 7 ref.
Publisher
World Small Animal Veterinary Association
Location of Publisher
Sao Paulo
Country of Publication
Brazil
Publication Type
Conference paper.

<186>
Accession Number
20103139080

Author
Waki, M. F.; Kogika, M. M.; Wirthl, V. A. B. F.; Oyafuso, M. K.; Prosser, C. S.; Monteiro, P. R. G.; Coelho, B. M. P.; Simoes, D. M. N.; Kanayama, K. K.
Title
Association of urinary tract infection with urolithiasis in dogs.
Source
34th World Small Animal Veterinary Association Congress, Sao Paulo, Brazil, 21-24 July 2009; 2009. :unpaginated. 10 ref.
Publisher
World Small Animal Veterinary Association
Location of Publisher
Sao Paulo
Country of Publication
Brazil
Publication Type
Conference paper.

<187>
Accession Number
20103138837
Author
Eugenio, F. R.; Sakamoto, S. S.; Silva, C. M.; Ferreira, G. T. N. M.; Souza, T. F. B.; Laranjeira, M. G.; Andrade, A. L.
Title
Retrospective study of the feline lower urinary tract disease's cases between 2002 and 2009 admitted at Unesp-Aracatuba Veterinary Hospital.
Source
34th World Small Animal Veterinary Association Congress, Sao Paulo, Brazil, 21-24 July 2009; 2009. :unpaginated. 10 ref.
Publisher
World Small Animal Veterinary Association
Location of Publisher
Sao Paulo
Country of Publication
Brazil
Publication Type
Conference paper.

<188>
Accession Number
20103138767
Author
Biller, D. S.
Title
Imaging of the urinary tract: what modality is my best choice?
Source
34th World Small Animal Veterinary Association Congress, Sao Paulo, Brazil, 21-24 July 2009; 2009. :unpaginated.

Publisher
World Small Animal Veterinary Association
Location of Publisher
Sao Paulo
Country of Publication
Brazil
Publication Type
Conference paper.

<189>
Accession Number
20103181439
Author
Adams, L. G.
Title
Diagnosis and management of difficult recurrent urinary tract infections.
Source
Small animal and exotics. Proceedings of the North American Veterinary Conference, Orlando, Florida, USA, 16-20 January 2010; 2010. :798-800. 12 ref.
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<190>
Accession Number
20103181382
Author
Westropp, J. L.
Title
UTIs in dogs and cats: latest treatment trends.
Source
Small animal and exotics. Proceedings of the North American Veterinary Conference, Orlando, Florida, USA, 16-20 January 2010; 2010. :851-854. 21 ref.
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<191>
Accession Number
20103263191
Author
Penna, B.; Varges, R.; Martins, R.; Martins, G.; Lilenbaum, W.
Title
In vitro antimicrobial resistance of staphylococci isolated from canine urinary tract infection.
Source
Canadian Veterinary Journal; 2010. 51(7):738-742. 24 ref.
Publisher
Canadian Veterinary Medical Association
Location of Publisher
Ottawa
Country of Publication
Canada
Abstract
This study determined the diversity of species and antimicrobial resistance of staphylococci isolated from dogs with a presumptive diagnosis of urinary tract infection (UTI). Urine samples from 348 dogs with clinical signs of UTI, according to clinical examination and urinalysis, were processed for isolation of Staphylococcus. Colonies in pure culture were identified by biochemical reactions and tested for susceptibility to 15 antimicrobials. Seventy isolates of staphylococci were obtained (20.1%). Staphylococcus pseudintermedius was the most frequent species (32.8%), followed by S. epidermidis (18.6%), S. simulans (15.7%), S. schleiferi schleiferi (11.4%), S. aureus (11.4%), S. schleiferi coagulans (7.2%) and S. saprophyticus (2.9%). All the isolates were resistant to at least 1 drug and 77.1% were multiresistant. The study reports the alarming antimicrobial resistance of members of the Staphylococcus genus isolated from canine UTI and highlights the importance of coagulase-negative staphylococci in its etiology.
Publication Type
Journal article.

<192>
Accession Number
20103295551
Author
Olby, N. J.; MacKillop, E.; Cerda-Gonzalez, S.; Moore, S.; Munana, K. R.; Grafinger, M.; Osborne, J. A.; Vaden, S. L.
Title
Prevalence of urinary tract infection in dogs after surgery for thoracolumbar intervertebral disc extrusion.
Source
Journal of Veterinary Internal Medicine; 2010. 24(5):1106-1111. 27 ref.
Publisher
Blackwell Publishing Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Background: Urinary tract infection (UTI) is a common complication in people with spinal cord injury (SCI). Dogs with acute intervertebral disc extrusion (IVDE) have similar risk factors for UTI when compared with human SCI patients and have a high perioperative prevalence of UTI. Objectives: Determine the prevalence

of UTI in dogs for 3 months after surgery for thoracolumbar IVDE and identify risk factors for development of UTI. Animals: Twenty-five dogs treated surgically for 26 acute disc extrusions. Methods: Prospective study. Urinalysis and urine culture were performed perioperatively. At home, owners monitored urine with dipsticks every 48 hours for 1 month then once a week until 3 months. Dogs returned for assessment of motor function, urinalysis, and urine culture at 1 and 3 months after surgery. Presence of UTI over the 3-month period was correlated to potential risk factors. Results: Ten dogs (38%) developed 12 UTIs over the 3-month period, with the majority occurring between weeks 1 and 6; 60% of the UTIs were occult. Hematuria in the absence of pyuria or UTI was a common finding in the perioperative period. Sex, breed, and ambulatory status influenced the risk of developing a UTI. Conclusions and Clinical Importance: There is a high prevalence of UTIs, many of which are occult, in the 3 months after surgery for thoracolumbar IVDE. These dogs should be routinely monitored for UTI with urine culture regardless of urinalysis results.
Publication Type
Journal article.

<193>
Accession Number
20103303026
Author
Thirunavukkarasu, P. S.; Srinivasan, S. R.; Vijayalakshmi, P.; Vijayakumar, G.; Nambi, A. P.; Vairamuthu, S.; Prathaban, S.
Title
Clinical evaluation of ceftriaxone and tazobactam in canine urinary tract infection.
Source
Intas Polivet; 2010. 11(1):84-85. 11 ref.
Publisher
Intas Pharmaceuticals Ltd
Location of Publisher
Ahmedabad
Country of Publication
India
Abstract
Dogs brought to the Small Animal Clinic Outpatient Medicine Ward of Madras Veterinary College Teaching Hospital were screened for the signs of Urinary Tract Infection (UTI). Dogs showing signs of stranguria, pollakuria, and hematuria were taken up for the study. Ten dogs were diagnosed as UTI based on the clinicopathologic investigations. Blood samples were collected for hematology and serum biochemistry. Urinalysis and culture and sensitivity of aseptically collected urine were undertaken as per standard techniques. The affected dogs were treated with Ceftriaxone with Tazobactum @ 20 mg/kg b.wt. bid iv for 7 days.
Publication Type
Journal article.

<194>
Accession Number
20103337807
Author
Pomba, C.; Couto, N.; Moodley, A.
Title

Treatment of a lower urinary tract infection in a cat caused by a multi-drug methicillin-resistant Staphylococcus pseudintermedius and Enterococcus faecalis.
Source
Journal of Feline Medicine and Surgery; 2010. 12(10):802-806. 18 ref.
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Staphylococci and enterococci are common causes of urinary tract infections in cats. However, both species are rarely implicated together as causes of lower urinary tract infections associated with urethral obstruction. This report describes the first case of a multi-drug methicillin-resistant Staphylococcus pseudintermedius belonging to spa type t06 and Enterococcus faecalis urinary infection in a cat with pre-existing and recurrent urethral obstruction. Both species were isolated at >105 CFU/ml from a cystocentesis urine specimen. Clinical and ultrasound features, results from urinalysis, urine culture, molecular typing and susceptibility testing by minimal inhibitory concentrations determination are described. Oral treatment with nitrofurantoin, the only antimicrobial agent that constituted a viable therapeutic option, had a positive outcome.
Publication Type
Journal article.

<195>
Accession Number
20103317313
Author
DiNatale, C. A.
Title
Chronic urinary tract infections for 3 years in a 11 year old Border Collie.
Source
American Journal of Traditional Chinese Veterinary Medicine; 2009. 4(1):67-69.
Publisher
American Association of Traditional Chinese Veterinary Medicine
Location of Publisher
Gainesville
Country of Publication
USA
Abstract
An 11-year-old female spayed Border Collie, 24 kg, with history of chronic urinary tract infection for three years is reported. The animal licked her genital area after every urination. Polyuria and polydipsia were also observed, along with lameness on the left hind leg of the animal. The diagnosis, treatment strategy, treatment plan, acupuncture therapy and dietary recommendations using traditional Chinese veterinary medicine approaches are presented.
Publication Type
Journal article.

<196>

Accession Number
20093007038
Author
Bubenik, L.; Hosgood, G.
Title
Urinary tract infection in dogs with thoracolumbar intervertebral disc herniation and urinary bladder dysfunction managed by manual expression, indwelling catheterization or intermittent catheterization.
Source
Veterinary Surgery; 2008. 37(8):791-800. 36 ref.
Publisher
Blackwell Publishing
Location of Publisher
Boston
Country of Publication
USA
Abstract
Objective - To evaluate risk factors for lower urinary tract infection (UTI) in dogs with intervertebral disc disease (IVDD) that had manual expression (ME), indwelling catheterization (IDC) or intermittent catheterization (ITC) for urinary bladder management. Study Design - Randomized-clinical trial. Animals - Dogs (n=62) treated with urinary bladder dysfunction requiring surgery for IVDD and control dogs (n=30) that had surgery for reasons other than IVDD. Methods - Treated dogs were randomly assigned to ME, IDC, or ITC. Urine was collected for culture and antimicrobial susceptibility testing before and after treatment. Incidence and risk factors for UTI were evaluated. Bacterial isolates and antimicrobial resistance patterns were described. Results - Mean (+or-SD) time to urination was significantly longer for IDC dogs (7.4+or-2.75 days) than ME dogs (4.2+or-2.63) and ITC dogs (4.9+or-3.12). Thirteen treated dogs (21%) and no control dogs developed UTI: 4/25 (16%) ME, 8/25 (32%) IDC, and 1/12 (8%) ITC. Enterobacter sp. was most frequently isolated (4/13; 31%). Duration of treatment was the only risk factor for UTI and each additional day of treatment increased the risk of UTI 1.5 times. Conclusion - For dogs with acute IVDD, the duration of required urinary bladder management establishes the risk of UTI, not the urinary bladder management technique. Clinical Relevance - Duration of treatment for urinary bladder dysfunction is a risk factor for UTI in dogs recovering from acute IVDD. Treatment for urinary bladder management should be limited where possible and no method of treatment is preferred. For dogs managed by IDC, voluntary urination might occur before clinically suspected.
Publication Type
Journal article.

<197>
Accession Number
20093017977
Author
Westropp, J. L.
Title
Advanced diagnostics for canine and feline lower urinary tract disorders.
Source
33rd World Small Animal Veterinary Association Congress, Dublin, Ireland, 20-24 August 2008; 2008. :412-413. 7 ref.
Publisher
Australian Small Animal Veterinary Association
Location of Publisher
Bondi
Country of Publication
Australia

Publication Type
Book chapter
Conference paper.

<198>
Accession Number
20083252299
Author
Palmero Colado, M. L.; Clinico Felino, G. C.
Title
Feeding of a cat with FLUTD. [Spanish]
Source
Ateuves; 2008. 3(16):16-20.
Publisher
ASIS Veterinaria s.l.
Location of Publisher
Zaragoza
Country of Publication
Spain
Abstract
The importance of correct diet for management of cystitis or FLUTD (feline lower urinary tract disease) in cats is considered. Combination of FLUTD symptoms, e.g. haematuria and pollakiuria or polyuria (small amounts of frequent urine) in cats is outlined. Definitions are included of terms cysto-punction (punction of the bladder with a needle for extraction of urine), crystalluria (crystals found in urine), dysuria (painful urination), haematuria (appearance of blood in urine), inadequate urinating (outside the litter box), obstruction (impossibility to urinate), pollakiuria, urethral obstruction and urolithiasis (formation of stones in the urinary system). Information is presented on feline idiopathic cystitis (non-inflammatory disease of the bladder), urolithiasis and urethral obstructions, and therapeutic diets. Occurrence of urinary infections and neoplasms are also considered.
Publication Type
Journal article.

<199>
Accession Number
20093138300
Author
Litster, A.; Moss, S.; Platell, J.; Trott, D. J.
Title
Occult bacterial lower urinary tract infections in cats - urinalysis and culture findings.
Source
Veterinary Microbiology; 2009. 136(1/2):130-134. 22 ref.
Publisher
Elsevier
Location of Publisher
Amsterdam
Country of Publication
Netherlands
Abstract

Bacterial urinary tract infections (UTIs) can be detected in feline urine submitted for urinalysis and culture as part of the diagnostic workup for a variety of conditions. Our aim was to investigate urinalysis and culture findings in urine specimens from cats with no history of lower urinary tract signs. Study inclusion criteria required cystocentesis specimens from cats with no history of lower urinary tract signs, inappropriate urination, or previous UTI (including pyelonephritis). Of 132 specimens, 38 were culture positive and 94 were culture negative. Culture positive urine specimens were more likely to come from older female cats (p=0.03, p<0.001, respectively) and they had higher pH (p=0.001), erythrocyte (p=0.013) and leukocyte counts (p=0.003) than culture negative urine specimens. Gram-negative infected specimens (n=15) had lower urine specific gravity and higher leukocyte counts than Gram-positive infected specimens (n=21; p=0.0012, p=0.005, respectively) and culture negative specimens (p=0.003, p<0.0001, respectively). Urine protein:creatinine ratio was higher in Gram-negative infected urine than in culture negative urine (p=0.013). Enterococcus faecalis was the most commonly isolated bacteria (19 of a total of 44 isolates; 43.2%) and E. coli phylogenetic group B2 was the most common Gram-negative isolate (14 of a total of 44 isolates; 31.8%). We conclude that feline bacterial urinary tract infections can occur in cats without lower urinary tract signs, particularly older females and that they are associated with high urine erythrocyte and leukocyte counts.
Publication Type
Journal article.

<200>
Accession Number
20093115212
Author
Gunn-Moore, D.
Title
Update on management of feline lower urinary tract disease.
Source
Small animal and exotics. Proceedings of the North American Veterinary Conference, Orlando, Florida, USA, 17-21 January, 2009; 2009. :750-753.
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA
Publication Type
Conference paper.

<201>
Accession Number
20093190129
Author
Wallius, B. M.; Tidholm, A. E.
Title
Use of pentosan polysulphate in cats with idiopathic, non-obstructive lower urinary tract disease: a double-blind, randomised, placebo-controlled trial.
Source
Journal of Feline Medicine and Surgery; 2009. 11(6):409-412. 14 ref.
Publisher

Elsevier
Location of Publisher
Amsterdam
Country of Publication
Netherlands
Abstract
Idiopathic feline lower urinary tract disease (FLUTD) is a common clinical entity where different treatments, for example glycosaminoglycans (GAGs) such as pentosan polysulphate (PPS), are advocated. However, few treatments have been investigated by well-controlled clinical trials. This paper compares the use of PPS in FLUTD compared to placebo. Of the 18 cats in the experiment, nine were treated with PPS and nine were treated with placebo with subcutaneous injections of 3 mg/kg PPS or placebo day 1, 2, 5 and 10. The study was double-blind, randomised and placebo-controlled. Revaluation was performed after 5 and 10 days, 2 weeks, 2, 6 and 12 months. There were no statistically significant differences concerning clinical signs between groups during treatment or at re-evaluation, except for pretreatment stressful events where PPS-treated cats had experienced significantly more stressful events compared to cats treated with placebo before entering the study. Six cats (33%) showed recurrence of clinical signs during the entire study period, and only one of these cats had more than one recurrent episode. One cat (placebo) was euthanased 7 days after initial treatment because of recurrence of clinical signs. Another cat (placebo) was euthanased due to other reasons after 6 months. At 2 weeks two cats (placebo and PPS) showed clinical signs. At 2 months re-evaluation one cat showed mild clinical signs. At 6 and 12 months all remaining 16 cats were healthy. Idiopathic, non-obstructive FLUTD is a self-limiting disease with good short-term and excellent long-term prognosis without treatment. Whether or not PPS may be beneficial in a subpopulation of cats with continuous or frequently recurring clinical signs may be elucidated in forthcoming double-blind, randomised and placebo-controlled trials including only this subpopulation of cats.
Publication Type
Journal article.

<202>
Accession Number
20093249686
Author
Varges, R.; Penna, B.; Lilenbaum, W.
Title
Urinary tract infection caused by Corynebacterium urealyticum in a male dog.
Source
Arquivo Brasileiro de Medicina Veterinaria e Zootecnia; 2009. 61(2):520-522. 10 ref.
Publisher
FEPMVZ - Editora
Location of Publisher
Belo Horizonte
Country of Publication
Brazil
Abstract
This paper reports on a case of canine urinary tract infection (UTI) caused by Corynebacterium urealyticum, an unusual opportunistic pathogen. Risk factors which are concordant to those cited in the literature, as well as clinical and microbiological (e.g. drug susceptibility and resistance) features were emphasized.
Publication Type
Journal article.

<203>
Accession Number
20093264850
Author
Tivapasi, M. T.; Hodges, J.; Byrne, B. A.; Christopher, M. M.
Title
Diagnostic utility and cost-effectiveness of reflex bacterial culture for the detection of urinary tract infection in dogs with low urine specific gravity.
Source
Veterinary Clinical Pathology; 2009. 38(3):337-342. 21 ref.
Publisher
Blackwell Publishing
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Background: Urinary tract infections (UTIs) may be subclinical or difficult to detect in dilute urine as sediment abnormalities may not be observed. In our laboratory, bacterial culture is automatically performed (reflex culture) on samples with urine specific gravity (USG) <=1.013 to increase the likelihood of detecting infection. The value of routine culture of dilute urine, however, has not been fully assessed. Objective: The purpose of this retrospective study was to evaluate the frequency of positive bacterial cultures and analyze the diagnostic utility and cost-effectiveness of culture compared with routine sediment examination for detecting UTI in dilute urine specimens from dogs. Methods: Urinalysis and concurrent aerobic bacterial culture results were obtained from the electronic medical record system at the University of California-Davis Veterinary Medical Teaching Hospital for samples with USG<=1.013 analyzed from July 1998 through January 2005. Urine collection method, presence of leukocytes and bacteria, bacterial culture results, and clinical diagnosis were recorded. Cost-effectiveness of reflex culture, based on low USG as the sole criterion, was evaluated. Results: Of 1264 urine specimens, 106 (8.4%) had positive bacterial cultures. Using culture as the gold standard, sediment evaluation had a diagnostic sensitivity of 58.5% and specificity of 98.3% (diagnostic accuracy 94.9%). An additional cost of $60 per patient was incurred, leading to average annual costs of $11,668 for reflex bacterial cultures of all samples with low USG, regardless of collection method. Within our study population, 10 urine samples needed to be cultured for each true positive result. Conclusions: The sensitivity of urine sediment evaluation is low for UTI in dilute urine samples; however, reflex bacterial culture does not appear to be cost-effective in dogs with USG<=1.013 in the absence of active urine sediment or high clinical suspicion for UTI.
Publication Type
Journal article.

<204>
Accession Number
20093308389
Author
Choi Ran; Lee SeungKeun; Hyun ChangBaig
Title
Urethral stenting in a cat with refractory obstructive feline lower urinary tract disease.
Source
Journal of Veterinary Medical Science; 2009. 71(9):1255-1259. 19 ref.
Publisher
Japanese Society of Veterinary Science
Location of Publisher

Tokyo
Country of Publication
Japan
Abstract
A 10-year-old male Korean domestic short-haired cat was presented with refractory lower urinary tract obstruction. The cat was treated by urethral stent placement using a self-expanding nitinol intraluminal stent (ZilverReg. 535 biliary stents, COOKReg., U.S.A.) subsequent with balloon expansion. Although the cat showed 2 days of transient hematuria after the stent placement, no further obstruction was occurred after the stent placement. Follow-up studies performed at monthly intervals have found no re-stenosis or particular complications, to date.
Publication Type
Journal article.

<205>
Accession Number
20083046248
Author
Bars, C. F. le
Title
Bacterial urinary tract infections.
Source
Veterinary Times; 2008. 38(4):14-16. 11 ref.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<206>
Accession Number
20083046247
Author
Wray, J.
Title
Veterinary view of UTI management.
Source
Veterinary Times; 2008. 38(4):10-13.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<207>
Accession Number
20083104178
Author
Bartges, J. W.
Title
Bad bugs and bladder drugs: treating UTIs in dogs and cats.
Source
Compendium Continuing Education for Veterinarian; 2008. 30(3B):4-10. 14 ref.
Publisher
Veterinary Learning Systems
Location of Publisher
Yardley
Country of Publication
USA
Publication Type
Journal article
Conference paper.

<208>
Accession Number
20083171069
Author
Passmore, C. A.; Sherington, J.; Stegemann, M. R.
Title
Efficacy and safety of cefovecin for the treatment of urinary tract infections in cats.
Source
Journal of Small Animal Practice; 2008. 49(6):295-301. 31 ref.
Publisher
Blackwell Publishing
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Objectives: To determine the efficacy and safety of cefovecin (ConveniaReg.; Pfizer Animal Health) in the treatment of urinary tract infections in cats. Method: A multi-centre, masked, randomised study was conducted in cats presenting with clinical signs indicative of urinary tract infections. Cephalexin (RilexineReg.; Virbac) administered orally twice daily at 15 mg/kg bodyweight for 14 days was compared with a single subcutaneous injection of cefovecin in cats. The primary efficacy parameter assessed was bacterial elimination of the pretreatment uropathogen. Results: Four hundred and thirty-four cats were screened for urinary tract infections. One hundred and eighty-five cats were treated with either cefovecin (n=124) or cephalexin (n=61). Ninety-seven cats (22.2 per cent) had confirmed bacteriuria and 82 cats were included in efficacy analysis. Escherichia coli was eliminated in 76.7 per cent (23 of 30) of cefovecin-treated cats compared with 62.5 per cent (10 of 16) of cephalexin-treated cats. Cefovecin demonstrated statistical non-inferiority compared with cephalexin for bacterial elimination. There were no suspected adverse drug

reactions attributable to treatment with cefovecin or cephalexin. Clinical Significance: Cefovecin was demonstrated to be an effective and safe treatment for urinary tract infections.
Publication Type
Journal article.

<209>
Accession Number
20083172697
Author
Cavana, P.; Zanatta, R.; Nebbia, P.; Miniscalco, B.; Vittone, V.; Zanoni, M. G.; Serra, R.; Farca, A. M.
Title
Corynebacterium urealyticum urinary tract infection in a cat with urethral obstruction.
Source
Journal of Feline Medicine and Surgery; 2008. 10(3):269-273. 20 ref.
Publisher
Elsevier
Location of Publisher
Amsterdam
Country of Publication
Netherlands
Abstract
Corynebacterium urealyticum is an uncommon cause of urinary tract infections in cats. However, it is difficult to diagnose and if left untreated it may result in irreversible bladder lesions. C. urealyticum is a multiantibiotic-resistant bacterium whose culture requires special care. Risk factors for the occurrence of this infection include urological procedures, foreign bodies, bladder mucosa abnormalities, immuno-suppressed states and antibiotic treatment. This report describes an unusual case of C. urealyticum urinary infection in a young cat with pre-existing urethral obstruction. C. urealyticum was isolated in pure cultures from two urine samples. Clinical and ultrasound features, results of the urinalysis and urine culture are described as well as therapeutic treatment and eventual favourable outcome to treatment with amoxycillin-clavulanic acid.
Publication Type
Journal article.

<210>
Accession Number
20083196945
Author
Lima, E. R.; Almeida, E. L.; Teixeira, M. N.; Rego, E. W.; Carneiro, A. S.
Title
Hematology profile in domestics cats (Felis domesticus, Linnaeus, 1758) with low urinary tract disease (LUTD). [Portuguese]
Source
A Hora Veterinaria; 2008. 28(164):62-65. 14 ref.
Publisher
A Hora Veterinaria
Location of Publisher
Porto Alegre
Country of Publication
Brazil

Abstract
The aim of this study is to evaluate the haematologic profile in animals with Lower Urinary Tract Infections (LUTD). Eight cats from both sexes of unknown breed 2 and 4 years of age was used in this study and were divided in 2 groups (4 males and 4 females), the animals initially were submitted to a diet of industrialized dried food, considered by the clinician as responsible for inducing LUTD. After development of the clinical signs, therapeutic industrialized dried food was then recommended for the control of LUTD. The animals was evaluated by haemogram and urinary examination for six months. Results of the haemogram showed that the males do not present significant differences while the females showed significant differences for blood chemistry, haematocrit, CMV and HMV. It may be concluded that the use of therapeutic diet for LUTD had a significant effect on the sintomatology of the animals in the haemogram with emphasis on the female cats.
Publication Type
Journal article.

<211>
Accession Number
20083196940
Author
Wettstein, K.; Descloux, S.; Rossano, A.; Perreten, V.
Title
Emergence of methicillin-resistant Staphylococcus pseudintermedius in Switzerland: three cases of urinary tract infections in cats.
Source
SAT, Schweizer Archiv fur Tierheilkunde; 2008. 150(7):339-343. 17 ref.
Publisher
Verlag Hans Huber
Location of Publisher
Bern
Country of Publication
Switzerland
Abstract
Methicillin resistance has emerged in clinical isolates of Staphylococcus pseudintermedius from cats in Switzerland. Three cats suffering from urinary tract infections were infected with methicillin-resistant S. pseudintermedius (MRSP). Phenotypic and genotypic characterization of the resistance profile showed that the isolates displayed resistance to all beta-lactams and cephalosporins (blaZ, mecA), fluoroquinolones, tetracyclines [tet(K)], macrolides, lincosamides and streprogramins B [erm(B)], chloramphenicol (catpC221), trimethoprim [dfr(G)] and the aminoglycosides gentamicin [aac(6')-Ie-aph(2')-Ia], kanamycin and neomycin [aph(3')-III] and streptomycin [ant(6)-Ia]. They also harbor the leukocidin gene lukS-I. MRSP represents a new challenge for antibiotic therapy and this zoonotic bacteria may rapidly spread to animals and humans.
Publication Type
Journal article.

<212>
Accession Number
20083254319
Author
Romagnoli, S.; Mascarello, F.; Guidi, G.; Bernardini, M.
Title

Urinary incontinence: a parallelism between dogs and humans. Epidemiology, causes and clinical signs. [Italian]
Source
Praxis Veterinaria (Milano); 2008. 29(3):2-8. 23 ref.
Publisher
Bayer Italia S.p.A - Veterinaria
Location of Publisher
Milano
Country of Publication
Italy
Abstract
Urinary incontinence (UI) occurs in male and female dogs and cats, but more common in dogs as 75% of cases were observed in spayed adult bitches. Female dogs and women share a few clinical aspects when it comes to UI, such as lack of oestrogen in women during menopause as in castrated bitches and the weakness (or incompetence) of the urethral sphincter (urethral sphincter incompetence mechanism=USMI) as key pathogenic mechanism. In spayed bitches, UI occurs among large dogs in which surgical removal of the tail is a common practice. Unlike women, the finding of the bladder neck into the pelvic cavity is not considered as risk factors in dogs. The incidence of (a) ectopic ureters (45% in young dogs) or (b) urogenital disease as cause of UI is quite low in adult dogs (5% and 20% respectively). Diseases which may occur complicating the diagnostic procedures include: neurologic conditions, generalized weakness, increase bladder tone, urinary tract infection, neoplasia, obstruction and use of drugs (diuretics, tranquilizer, corticosteroids, alpha and beta adrenergics). The classical sign however of USMI is the loss of urine during sleep or recumbency.
Publication Type
Journal article.

<213>
Accession Number
20083253709
Author
Riccomini, F.
Title
Management of feline lower urinary tract disease: FLUTD.
Source
VN Times; 2008. 8(10):14...17.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Publication Type
Journal article.

<214>
Accession Number
20083257471
Author

Kralova, S.; Husnik, R.; Kohout, P.
Title
Feline Lower Urinary Tract Disorder - case reports. [Czech]
Source
Veterinarstvi; 2008. 58(3):139...146. 19 ref.
Publisher
Profi Press, s.r.o.
Location of Publisher
Praha
Country of Publication
Czech Republic
Abstract
In this article, three cases of feline lower urinary tract disorder with three different aetiological origin but with similar clinical signs are discussed.
Publication Type
Journal article.

<215>
Accession Number
20083274145
Author
Bailiff, N. L.; Westropp, J. L.; Nelson, R. W.; Sykes, J. E.; Owens, S. D.; Kass, P. H.
Title
Evaluation of urine specific gravity and urine sediment as risk factors for urinary tract infections in cats.
Source
Veterinary Clinical Pathology; 2008. 37(3):317-322. 17 ref.
Publisher
Blackwell Publishing
Location of Publisher
Oxford
Country of Publication
UK
Abstract
Background: It has been suggested that diseases that promote isosthenuria predispose to urinary tract infections because of a lack of the common bacteriostatic properties present in concentrated urine. Objectives: The purpose of this study was to assess the clinicopathologic risk factors for positive urine culture outcome in cats with chronic kidney disease (CKD), diabetes mellitus (DM), uncontrolled hyperthyroidism (HT), or lower urinary tract disease (LUTD). Methods: For this retrospective study, medical records of all cats in which a urinalysis and aerobic bacterial urine culture were performed between January 1995 and December 2002 were reviewed. Signalment, body weight, and clinicopathologic data were recorded. Based on the medical records, cats were diagnosed with CKD, DM, HT, or LUTD. Prevalence odds ratios and 95% confidence intervals were calculated using logistic regression. Multivariate models were created for each variable of interest while controlling for the confounding effect of disease group. Results: Six hundred fourteen cats met the criteria for inclusion in the study. Overall, positive urine cultures were identified in 16.9% of cats with CKD, 13.2% of cats with DM, 21.7% of cats with HT, and 4.9% of cats with clinical signs of LUTD. Decreasing urine specific gravity was not associated with positive urine culture when controlled for disease but pyuria, bacteriuria, and haematuria were all associated with positive urine culture outcome. Persians, females, increasing age, and decreasing body weight were all associated with positive urine culture outcome. Conclusions: Performing a urine culture sample based solely on the presence of isosthenuria does not seem warranted. Further studies are warranted to help identify host predisposing factors for urinary bacterial colonization in cats with these diseases.
Publication Type

Journal article.

<216>
Accession Number
20083286142
Author
Killner, J.
Title
Canine urinary tract infections.
Source
VN Times; 2008. 8(11):8-9.
Publisher
Veterinary Business Development Ltd
Location of Publisher
Peterborough
Country of Publication
UK
Abstract
This article discusses the various aetiology, symptoms, diagnosis, differential diagnosis and catheterization of dogs with urinary tract infection.
Publication Type
Journal article.