



Risk Factors for Feline UTI

A veterinary teaching hospital's medical records from 1996 through 2003 were reviewed for prevalence of urinary tract infections (UTIs) in cats with 3 common diseases: hyperthyroidism, diabetes mellitus (DM), and chronic kidney disease (CKD). The study included 224 cats: 90 with hyperthyroidism, 57 with DM, and 77 with CKD. Only cats with documented urinalysis, urine culture with urine collected by cystocentesis or catheterization, and definitive evidence of the primary diagnosis were included. Positive urine cultures were found in 11 (12%) of the hyperthyroid cats, 7 (12%) of the cats with DM, and 17 (22%) of the cats with CKD. Urinalysis served as a useful predictor for UTI, as associations were found between positive urine cultures and bacteriuria and increased leukocytes in the urine sediment. However, 8 of the cats with UTIs had no bacteriuria and 6 of these had no abnormal findings in urine sediment. In addition, only 6 of the 35 cats with UTIs showed clinical signs of lower urinary tract disease (LUTD). Urine culture results revealed *Escherichia coli* to be responsible for 46% of the infections. Of the bacteria cultured, 89% were sensitive to amoxicillin/clavulanic acid and 83% to enrofloxacin, making amoxicillin/clavulanic acid a good first-choice antibiotic. The study concluded that there is a high prevalence of UTI in cats with hyperthyroidism, DM, and CKD; however, many cats show no clinical signs of LUTD or changes in blood or urinalysis values that are indicative of UTI. Thus, UTIs should not be excluded on the basis of urinalysis alone: urine cultures should be performed with follow-up antibacterial sensitivity testing for positive cultures.

COMMENTARY: This retrospective study strengthens the claim that quantitative urine culture is the gold standard for diagnosing bacterial UTIs. It is particularly important to consider urine culture as a routine part of the diagnostic plan in the type of patients studied, given their greater risk for persistent UTIs or pyelonephritis, especially if clinical signs or other basic laboratory diagnostics cannot be relied on to diagnose UTI. A surprising finding in this study was that hyperthyroid cats also seem to be at greater risk for UTI. Unlike DM and CKD, in which there are both human and veterinary reports of increased risk, studies have not documented UTI as being common in humans or cats with hyperthyroidism. It would be interesting to see further studies evaluating the renal and immune function of such cats.—Jennifer L. Schori, VMD

Urinary tract infections in cats with hyperthyroidism, diabetes mellitus, and chronic kidney disease. Mayer-Roenne B, Goldstein RE, Erb HN. *J FELINE MED SURG* 9:124-132, 2007.