

Does Subclinical Bacteriuria Affect Survival in Older Cats?

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In the Literature

White JD, Cave NJ, Grinberg A, Thomas DG, Heuer C. Subclinical bacteriuria in older cats and its association with survival. *J Vet Intern Med.* 2016;30(6):1824-1829.

FROM THE PAGE ...

Subclinical bacteriuria is a relatively common finding in older, especially female, cats, prompting the question: should this bacteriuria be treated?

This prospective, longitudinal study was designed to determine the prevalence of and specific risk factors for subclinical bacteriuria (SB) in older, nonazotemic cats. Sixty-seven nonazotemic cats (median age, 8.6 years; 28 females, 39 males) from a university nutrition colony were included. Urine samples obtained by cystocentesis were aerobically cultured 5 different times over 3 years. Positive urine cultures were defined as ≥ 1000 colony forming units/mL. The prevalence of SB at each test fell between 10% and 13%. The most commonly isolated bacterial species were *Escherichia coli* and coagulase-negative *Staphylococcus* spp. Female cats were more likely to have a positive urine culture as compared with male cats, but there was no association between SB and serum creatinine concentration, body weight, or urine specific gravity in this study.

Previous studies have found an association between increasing age and SB^{1,2}; however, because this study only involved older cats, it was not possible to confirm age as a risk factor. Similar to this study, another study³ found an association between female cats and bacteriuria and no association between urine specific gravity and bacteriuria; however, in contrast to the present study, an association between decreasing body weight and increasing age and bacteriuria was determined to be present.

In addition to prevalence and risk factors, the effect of SB on survival was investigated. In this study, cats with persistent weight loss were euthanized, but SB was not associated with decreased survival time.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Results indicate that SB in nonazotemic older cats may not warrant treatment, but this should be confirmed in larger, longer prospective studies.
- 2** SB treatment is not without risks (eg, cost, difficulties with administration, antibiotic resistance).
- 3** These findings should not be extrapolated to cats with azotemic CKD because bacterial cystitis may ascend to involve the kidneys (bacterial pyelonephritis), which can be difficult to definitively diagnose.
- 4** Whether cats with CKD should be routinely screened for SB remains to be determined. No association was identified between SB and the development of azotemia or renal pathology at necropsy in this study, but cats with pre-existing CKD are considered to be at risk for disease progression if pyelonephritis develops.

References

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3. Bailiff NL, Westropp JL, Nelson RW, Sykes JE, Owens SD, Kass PH. Evaluation of urine specific gravity and urine sediment as risk factors for urinary tract infections in cats. *Vet Clin Pathol.* 2008;37(3):317-322.