ONE MINUTE CONSULT

CME CREDIT

BRIEF QUESTIONS AND ANSWERS ON CURRENT CLINICAL CONTROVERSIES

Q: When should asymptomatic bacteriuria in the elderly be treated?

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Treat only if there is obstruction or if you plan an invasive procedure

A: THERE IS NO INDICATION for treating asymptomatic bacteriuria in the elderly, unless there is urinary tract obstruction or a need for an invasive procedure. In short, don't look, unless you need to touch!

ASYMPTOMATIC BACTERIURIA IS COMMON IN THE ELDERLY

The prevalence of asymptomatic bacteriuria in the elderly (over age 70) depends on gender and other factors. For example, the prevalence in ambulatory women is 18%—three times higher than in ambulatory men (6%). The prevalence in nursing home patients is 24%, which is twice as high as in apartment dwellers (12%).[1]

Urinary incontinence, cystoceles, and lack of estrogen are risk factors that predispose elderly women to bacteriuria. In men, obstructive uropathy is the usual culprit.

Functional impairment is another risk factor. In one institution, where the majority of patients had Alzheimer disease, the prevalence of bacteriuria was 50% in women and 33% in men.[2]

Nursing home patients are also more likely than apartment dwellers to have persistent bacteriuria (repeated positive urine cultures); the prevalence is 14% vs 3%. However, persistence due to the same microorganism is infrequent, reported only in 6% of women and 1.3% of men.

IS ASYMPTOMATIC BACTERIURIA HARMFUL?

A provocative article, published in 1981, concluded that asymptomatic bacteriuria in old age reduced survival.[3] This study was done in healthy residents of a home for the aged in Greece, with a 10-year follow up. Twenty-two percent of residents had asymptomatic bacteriuria, and their median survival was significantly lower than in those without infection. More patients with bacteriuria had declining renal function, and more died of strokes. Unfortunately, there was no autopsy confirmation of cause of death. Furthermore, patients who initially had sterile urine but subsequently developed bacteriuria were not identified.

The results of this study have been repeatedly challenged. Nicolle and colleagues,[4] in a study of elderly institutionalized men (of whom nearly 60% were functionally impaired and incontinent of urine), found no difference in survival between those with bacteriuria and matched controls.

BENEFIT OF TREATMENT NOT PROVED

Treatment of asymptomatic bacteriuria in the elderly has not been very successful. In a nursing home population, antibiotic failures, relapses, and recurrences occurred in 81% of treated women,[2] and a relapse or failure occurred in 77% of treated men.[5] A recurrence rate of 36% was reported in elderly ambulatory women.[6]

Further, there is no evidence that patients with asymptomatic bacteriuria are predisposed to urosepsis unless their urinary tracts are obstructed or manipulated, as might occur from urinary catheters or cystoscopes. However, we do know that prolonged antibiotic use results in colonization by resistant organisms, which may be harder to treat, if the need arises. While there may be a perceived short-term benefit in eradicating bacteriuria, there is no long-term effect on outcomes, even in patients with diabetes mellitus.[7,8]

REFERENCES

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4. **Nicolle LE, Henderson E, Bjornson J, et al.** The association of bacteriuria with resident characteristics and survival in elderly institutionalized men. Ann Intern Med 1987; 106:682–686.
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7. **Abrutyn E, Mossey J, Berlin JA, et al.** Does asymptomatic bacteriuria predict mortality and does antimicrobial treatment reduce mortality in elderly ambulatory women? Ann Intern Med 1994; 120:827–833.
8. **Zhanel GG, Hardig GKM, Nicolle LE.** Asymptomatic bacteriuria in patients with diabetes mellitus. Rev Infect Dis 1991; 13:150–154.

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CORRECTION

In "The Mediterranean diet and endothelial function: Why some dietary fats may be healthy" by Dr. Robert A. Vogel (*Cleve Clin J Med* 2000; 67:232–236), reference 10 was omitted. This should be as follows:

10. **Hakim AA, Curb DC, Petrovich H, et al.** Effects of walking on coronary heart disease in elderly men. The Honolulu Heart Program. Circulation 1999; 100:9–13.

CME ANSWERS

CME 2 CREDIT HOURS

Answers to the CREDIT TEST on page 535 of this issue

1 **A** 2 **B** 3 **C** 4 **E** 5 **D** 6 **D** 7 **D** 8 **D** 9 **A** 10 **D** 11 **D** 12 **C** 13 **B**