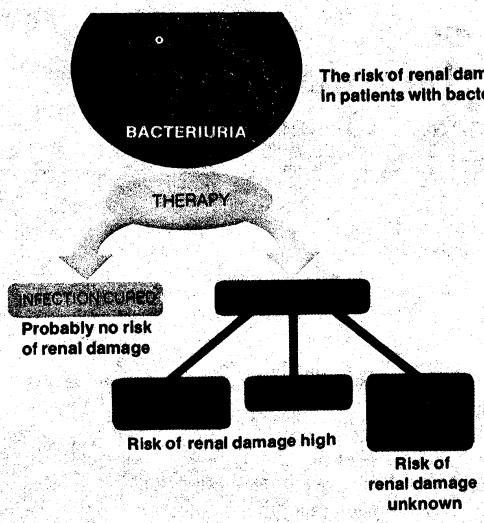

The risk of renal damage in patients with bacteriuria.

800 mOsm are more likely to develop symptomatic renal disease.[2] Treatment of bacteriuria in such cases usually improves the renal concentrating ability.[2]

Antibody titer and prognosis. Another major contribution to detecting renal involvement in a patient with asymptomatic bacteriuria is the demonstration of a specific antibody response to infecting bacteria, as it correlates with histologic evidence of pyelonephritis.[35] Patients having the highest titer of specific antibody are more likely to have renal involvement. Successful treatment is associated with a lower antibody titer; conversely, a lack of therapeutic success is linked to persistently high titers. As in patients with renal-concentration defects, women having high antibody titers—especially in early pregnancy—risk developing renal symptoms. There is a close correlation between the severity of a renal-concentration defect and the antibody titer.

Finally, Wren,[36] who quantitated the leukocytes excreted in urine of pregnant women, found that both symptomatic pyelonephritis and the delivery of infants of low birth weight were more common among bacteriuric women having quantitative pyuria than in bacteriuric women without pyuria. To some extent, quantitative pyuria was predictive of bacterial infection of the kidney.

WHO SHOULD BE SCREENED FOR BACTERIURIA?

Whether large-scale screening should be carried out to detect asymptomatic bacteriuria in females must be considered judiciously until the natural history of untreated bacteriuria—and its etiologic role in renal disease—has been elucidated. At present, it appears that screening girls younger than five years is justified because of vulnerability to intrarenal reflux and infection followed by permanent kidney scarring. The screening of pregnant women for bacteriuria is also justified, since an estimated 70-90% of cases of potential pyelonephritis associated with pregnancy can be eliminated on one screening, which pinpoints bacteriuric patients for antibiotic treatment. However, pregnant patients should be tested on at least two occasions, since an estimated 1% will later develop bacteriuria.[2] Some authors[2,37] advocate that—just as for proteinuria—one should routinely check for bacteriuria during pregnancy.

Other valid indications for the routine testing of bacteriuria include: patients who have undergone catheterization of the bladder; following treatment of urinary tract infection in order to establish a clinical cure, or to detect an asymptomatic relapse or disease recurrence. Finally, it is the author's opinion that each infection of the urinary tract should be regarded as a potentially chronic problem.

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