

MEditorial April 2009

“Urinary Tract Infections”

One of my pet peeves in medicine is the overuse of antibiotics. For my children, fortunately, I have found pediatricians disinclined to give antibiotics for, e.g., upper respiratory infections and fevers unless there are extraordinary circumstances.

One of the most common things we see in urology is urinary tract infections (UTI's). These take the form of asymptomatic and symptomatic UTI's. Symptomatic cystitis is one of the most common acute illnesses in women.

Asymptomatic UTI's are basically abnormal lab tests (urinalyses, urine cultures/urine “C&S's”) pointing toward infection in a patient who otherwise feels well. That patient may not have symptoms since the infection is minimal and especially if the bacteria is “weak” and does not cause much response from the body. It is that immune response from one's body to the bacteria that in part, dictates the degree of pain, inflammation, urinary dysfunction, etc. Some patients with neurologic conditions, diabetes and old age may not have typical urinary symptoms with an infection—e.g., their pain fibers and sensation may be altered. “Symptoms” in these patients may be fevers, loss of appetite and a vague flu-like illness.

In reviewing the “significance” of asymptomatic infections, the fact that the patient feels well is more important than the lab result. In assessing the lab results, it is known that specimens from women and occasionally from men (especially those uncircumcised) can contain contaminants that result in confusion. In such cases, or when the basic urinalysis is normal despite a urine culture suggesting UTI, I tend to downplay the results. A catheterized urine specimen is a good arbiter of repeated confusion as to whether an individual even has significant abnormalities on urinalyses and/or urine cultures suggesting infection.

I would tend NOT to treat asymptomatic urinary infections (sometimes referred to as asymptomatic bacteriuria) unless that patient is about to have elective urologic surgery or has certain conditions such as “staghorn” stones of the kidney , the prevention of which may depend upon elimination of--and prophylaxis against--even asymptomatic bacteriuria.

Patients with indwelling urinary catheters often have abnormal urine culture results and are told they have infections without any symptoms (and are given antibiotics). Oftentimes, this is misguided. Indiscriminate treatment of these patients with antibiotics greatly enhances the risks of antibiotics, especially the development of more resistant/dangerous bacteria in the urinary tract and elsewhere. Overuse of antibiotics in this population is a major public health threat-- and cause for hospitalizations and serious illnesses.

Symptomatic infections take the form of lower urinary tract irritative symptoms (frequency, urgency, spasms, leakage, pain, bleeding), occasionally upper tract symptoms (flank pain) and may or may not be associated with fevers. Fevers with urinary infections suggest very serious causative bacteria; kidney involvement (men and women); or prostate involvement (acute prostatitis in men).

A symptomatic UTI patient should be treated with antibiotics if he/she is not resolving the issue spontaneously, symptoms are severe/worsening, or they are associated with documented fevers. The body's immune system, without antibiotics, can handle and dispose of weakly pathogenic bacteria.

Although others may disagree, I feel that a properly obtained (again, occasionally requiring in-and-out catheterization) urine specimen should be sent to a lab for routine urinalysis and urine C&S (culture and sensitivity) BEFORE antibiotics are taken for a suspected symptomatic UTI. By doing so, we the doctors will be more certain when the results come back (often within a few days) this really was a UTI. Note other conditions including urinary stone disease and painful bladder syndrome/interstitial cystitis can simulate UTI symptoms. By seeing the C&S lab report, we can advise on the type of antibiotic and duration of treatment, more so in patients with recurring UTI's.

Some patients with recurring UTI's, especially ones associated with fevers and severe illness do need further studies to see if there is a

source, such as obstruction of a kidney by a stone, poor bladder emptying, reflux (backwards flow of urine during voiding), etc. However, most patients with uncomplicated UTI's (and without fevers) do NOT benefit from such costly analyses. Your doctor can determine into what category of "risk" you fit.

Patients, especially women (but men, too), with recurrent lower urinary infections (cystitis or prostatitis) often benefit from treatment with low dose so-called "prophylactic" antibiotics for 6 or more months until the body's immune system re-calibrates. These immunologic "oversights" are likely due to poorly understood temporary gene malfunction--to which certain people are prone.

I am not a big believer in self-diagnosis and self-treatment of UTI's--although some doctors allow self-starting of antibiotics for symptoms suggesting cystitis.

Remember, before you take those antibiotics, how sure is the doctor you have a UTI--and how does he/she plan to prove this? Will an adjustment be made to the antibiotics once the lab results are known? How will those results be communicated to you to avoid unnecessary or inappropriate use of antibiotics? Do the risks of antibiotics (dangerous "superinfections", allergies, gastrointestinal, and occasionally pulmonary, neurologic and hematologic reactions outweigh the benefits?