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“Code Yellow: I Cannot Pee”

“Sudden” shut-off of urination is one of the most common emergencies we face as urologists. This very painful situation usually requires urgent placement of a catheter to drain the bladder; this can be a one-time deal or more likely left indwelling (so-called “Foley catheter”). Once the bladder over distends--for whatever reason-- it takes a variable amount of time to recover; some feel overstretching of the bladder is akin to overinflating a balloon, with damage to the small elastic fibers that comprise the balloon, making it flaccid and lose recoil. One difference between the balloon and the bladder is that the latter has living cells which can repair and replace themselves, eventually functioning, in unison, as if nothing ever happened.

Most patients who suddenly “cannot pee” have underlying problems with their bladder function, occasionally with just mild/barely noticeable antecedent symptoms, such as a bit more voiding at night, occasional start-and-stop urinating, and having to go twice to empty the bladder. Many patients with “acute urinary retention” swear to no prior such problems; and never have even thought of visiting a urologist.

With aging, there are progressive but subtle changes in the nerve and muscular function of the bladder (which is mostly a container made of smooth muscle tissue). Minor inapparent malfunctions are increased by stresses placed on these nerves and muscles. An obvious source of nerve impairment is the type of neuropathy often associated with

diabetes--but also seen in more “pure” neurologic diseases e.g., multiple sclerosis and spinal cord injury. Chronic overwork of the bladder by having to pass urine beyond an obstruction (BPH or benign prostatic hypertrophy, in men, most commonly) can also “decompensate” the bladder to where its function is marginal, but nonetheless adequate from the patient’s perspective.

Any patient with impairment of nerve and/or muscle function of the bladder is at risk for going into urinary retention. What, then, is the “tipping point”? We do not always know for sure, but any/all of the following, as well as other factors, may play a role: (1) other serious illnesses or major operations--especially on the abdomen--that render a patient relatively immobile and possibly incapable of recruiting lower abdominal wall muscles to “help” the weakened bladder; (2) very high fluid intake, especially intravenous hydration seen in hospitalized individuals; (3) use of lasix or other diuretic medicines that force the kidneys to filter more blood and excrete a high volume of urine, overwhelming partially or completely the impaired bladder’s ability to eliminate; (4) urinary infections, especially bacterial prostatitis in men, causing more swelling and congestion of the gland sitting below the bladder and surrounding the 1st part of the urethra; (5) certain medicines that play havoc with the nerves going to the bladder and bladder outlet, including those that interfere with bladder contractility or those that prevent relaxation of the bladder outlet (bladder neck, and in men, prostate) during the act of urinating; (6) stress brought on by anxiety, prolonged travel, poor sleep, use of certain cold/respiratory medications that cause spasm of the bladder outlet, or exposure to cold weather or water. (7) significant urinary bleeding, resulting in blood clots that literally “clog the drain”.

Some men assume their prostate must have “grown larger” to bring on acute retention. This is rarely the case. Men can have retention without a large prostate; and benign prostatic enlargement may only be chronically creating an adverse climate for the bladder, which puts it “at the brink” of shutting off suddenly. By the way, men with acute retention rarely develop this from known or unknown prostate cancer.

In my experience @ least 50% of men with prostate enlargement and acute retention will “come out of this” on their own, given a few weeks. During this time, some type of tube drainage will be needed, either an indwelling bladder tube or so-called “intermittent” catheterization. Increasing doses of alpha-blocker drugs, such as Tamsulosin (Flomax) or Doxazosin (Cardura) can help acutely. “Prostate shrinking” medicines, e.g., finasteride/Proscar or Avodart will seldom resolve this situation in the short run--but may reduce the chance of this recurring, in the long run. For BPH patients with unresolving retention, a TURP (transurethral resection of prostate) or with very large glands, an open prostatectomy, will solve the problem in 95% of cases, but there is a rare man, often older/more frail with other serious medical problems, who either cannot undergo these procedures or in whom these will not help. So-called “lesser invasive” alternatives to TURP such as microwave (e.g., TUMT) and needle radio-ablative technologies (e.g., TUNA) are simply not as effective as the “gold standard”, TURP.

Women with acute retention often come out of it spontaneously, but may be at risk for increasing such unpleasant episodes in the future.

Since urethral blockage is rarely an issue for women--and their bladder outlets do not respond as well to alpha-blocker medications, intermittent self-catheterization may need to be taught to and done by the woman either on an "as needed" or regular basis. Such relatively "newer" technologies such as a sacral neuromodulation with "Interstim" [Medtronic Corporation] require more research to see where they fit in, especially in non-obstructive retention; but I myself have NOT seen many patients benefit from this approach, as high tech as it seems.

Remember "what goes up must come down"; and not all that causes distress in our bodies has a downhill course. If you "cannot pee", give time a chance, before resorting to major interventions, especially surgery.

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