

Urodynamics

Approximately half of men and a third of women with lower urinary tract symptoms (LUTS) have detrusor instability on urodynamic evaluation, but only about half of men and women with symptoms of overactive bladder have proven detrusor instability. Most patients with proven detrusor instability do not have symptoms of overactive bladder.

Empiric treatment of overactive bladder appears to work just as well (or poorly) whether or not the patient has proven detrusor instability.

Men with LUTS have about a 2/3 chance of having prostatic obstruction, a 50% chance of having detrusor instability, a 25% chance of having impaired detrusor contractility, a 10% chance of having low bladder compliance and a 5% chance of having normal urodynamics. These numbers add up to more than 100% because most men have more than one urodynamic abnormality to account for their symptoms. Community dwelling men do not appear to be different from those seen in academic centers in this regard.

Empiric treatment of male LUTS appears to work just as well (or poorly) regardless of the underlying urodynamic abnormality.

Most women with stress incontinence have sphincteric incontinence (as opposed to overactive bladder) and with the recent popularity of sling surgery, urodynamic abnormalities appear to make little difference in outcomes after surgery.

I did not reference any of the above data because I don't think it's necessary. Some might disagree with the breakdown of the statistics, but few, I think would disagree with the conclusions—neither symptoms nor response to treatment correlate very well with specific urodynamic diagnoses.

Some clinicians and scientists and many more payors of medical fees have used these data as arguments against the routine use of urodynamics. They argue that in the absence of compelling data that affects outcomes, there is no need to subject the patient and/or the payor to such unnecessary testing.

I disagree. I think that urodynamics is useful for all patients with persistent LUTS. In the current issue of this journal Digesu et al. [2003] conclude that "urodynamics is mandatory in the management of the woman with symptoms of overactive bladder." I would not personally mandate that anyone do anything, but I recommend urodynamics (actually video-urodynamics) for practically everyone with persistent LUTS. The only exceptions are those patients in whom urethral catheterization poses a risk (infection or urinary retention) and who would not otherwise undergo treatment. For practical purposes this means neurologically normal children and frail men with presumed prostatic obstruction or impaired detrusor contractility who will not or cannot accept treatment.

Why? How can I justify routine videourodynamics to the patient? Myself? The payor? First, the patient. I believe the more you know about a patient, the more likely you are to obtain an accurate diagnosis and, the more accurate the diagnosis, the more effective the treatment. If that is the case, then why don't the scientific studies support this? The reason is that it is not all science—it's part science and part art. Or, maybe the science is

just not good enough. One woman has sphincteric incontinence, no urethral hypermobility, a leak point pressure of 50 cm H₂O, no residual urine and voids only by abdominal straining, without a measurable detrusor contraction. Another has sphincteric incontinence, marked urethral hypermobility, a leak point pressure of 110 cm H₂O, and normal pressure/flow studies. I treat them both with a pubovaginal sling. They both get just the right sling tension, one a little tighter than the other, based on my own experience. If I treated them both the same, there would be no reason to do the urodynamics in the first place.

I treat men with severe prostatic obstruction differently than those with no obstruction and detrusor instability. You can only make this distinction with urodynamics.

I treat men and women with detrusor instability differently depending upon a recently published classification system that I won't bore you with.

That's why I do urodynamics. For the patient.

Second, how do I justify doing urodynamics to myself? I don't do urodynamics to myself, I justify to myself doing it to others, because: 1) coupled with history, examination, diary and pad test, it is the most accurate way of attaining a correct diagnosis. 2) It allows me to learn from my own experience. I learn to appreciate the subtle differences among patients and, perhaps, the reason why one patient succeeds while the other fails, 3) It provides the objective substrate for doing good clinical research, and 4) asking about and understanding pathophysiology is the basic ingredient that fosters the creativity that leads to better understanding and new treatments.

Third, how do I justify urodynamics to payors? I don't. That's not my job. My obligation is to the patient (whether or not he is the payor). If the patient is the payor, then he or she can decide whether urodynamics should be done. If the patient is the payor and wants urodynamics and can't afford it, I can decide to be charitable, but I don't think I should be forced to be charitable. If the patient is not the payor and wants urodynamics and the payor won't pay, we have a problem. In my environment, if the payor doesn't pay, and I do the study, I pay (of course I discount my own fee to zero, but I still pay a lot of money for disposables, overhead and things). If I'm a salaried employee of something like a government, none of this applies and I can do what I want as long as they let me. But then I may have to prove to them that urodynamics is necessary and useful.

I've already proved it to myself, but they can be hard to convince.

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REFERENCE

Digesu GA, Khullar V, Cardoz L, Salvatore S. 2003. Over active bladder symptoms: do we need urodynamics? *NeuroUrol Urodynam* 22:105–8.

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