Editorial Comment

Transrectal ultrasound guided biopsy of the prostate is not 100% sensitive and the false negative biopsy rate is estimated at 20 - 30 %. Only few papers address these missed cases and therefore, this contribution is worthwhile reading. 164 patients had negative biopsy of their prostate. 40% underwent TURP, and of these 69 underwent 1 or 2 TURPs. 7 of these patients had cancer. 53 patients had one or more TRUS biopsies, 13 were found with cancer. Interestingly, of the 18 patients diagnosed with prostate cancer, 3 were diagnosed within 12 months of their initial biopsy. 3 patients were found to have bone metastasis at this time, indicating an aggressive disease.

With these results in background the authors concluded correctly, that all patients, who have a suspicious PSA, but a negative biopsy should undergo an intensive monitoring period and PSA monitoring until it is clear that PSA is not rising.

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FEMALE UROLOGY

Comparative assessment of maximal bladder capacity, 0.9% NaCL versus 0.2 M KCL, for the diagnosis of interstitial cystitis: a prospective controlled study

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J Urol. 2003; 170: 807-9

Purpose: Increased urothelial permeability has been proposed as a cause of interstitial cystitis (IC). The potassium sensitivity test assesses bladder discomfort after instillation of 0.4 M KCL for identification of increased urothelial permeability. Since exposure to 0.4 M KCL may be extremely painful for patients with IC we investigated a less traumatic alternative.

Materials and Methods: The study comprised 38 controls and 40 patients with IC. In all subjects cystometry was performed with 0.9% NaCL followed by 0.2 M KCL, and filling volume at first urge and maximum bladder capacity (Cmax) were assessed for both solutions.

Results: Controls did not show a significant change in Cmax. KCL decreased Cmax in 37 of 40 (92%) patients with IC with a mean decrease of 30%. The examination was painless in all controls and in 33 of 40 (82%) patients with IC, and was moderately painful in 7.

Conclusions: For demonstration of increased potassium sensitivity and diagnosis of IC, comparative assessment of Cmax is a well tolerated alternative to the 0.4 M potassium sensitivity test. Statistical evaluation of these results suggests that a decrease in Cmax greater than 30% is indicative of IC.

Editorial Comment

The authors evaluate the value of diagnostic testing for interstitial cystitis by comparing cystometry changes using a 0.2 M KCL instillation solution as opposed to a standard potassium sensitivity test using an instillation of 50 cc of 0.4 M KCL. The authors compared two groups of patients: 40 female patients with

interstitial cystitis and 38 control patients. Interstitial cystitis patients had been diagnosed using the National Institute of Health / National Institute for Diabetes and Digestive and Kidney Diseases criteria for IC. Both the control and IC group underwent standard cystometry using 0.9% NaCL solution then drained and retested with 0.2 M KCL at a rate of 50 cc/min. At the end of this, all patients underwent a potassium sensitivity test (PST) with instillation of 50 cc 0.4 M KCL. The authors then looked at changes in maximum capacity between the cystometry utilizing normal saline and those with 0.2 M KCL compared the differences between the groups of controls and patients with interstitial cystitis. Using a cutoff of a 30% maximum capacity reduction, the test was found to have a sensitivity of 73% and a specificity of 83% to confirm the diagnosis of interstitial cystitis.

This is a valuable article in view that it expands the horizons of testing for evaluation of interstitial cystitis. The potassium sensitivity test is more of a static subjective test as it is based on the patient's ability to respond if there is an increase of pain or not. The urodynamics test allows the physician to observe a more quantitative change in bladder sensation and capacity secondary to the instillation of KCL solution and then deduce whether the patient has the diagnosis of IC. To truly appreciate this article, one must accept the validity of the KCL sensitivity test as truly diagnostic of interstitial cystitis. Potential difficulties may arise in the patient's changed or altered response to a second urodynamics test in a short period of time. On the second cystometry, the patient has the potential to anticipate the various parameters and thus change the important parameters of testing. In addition, it is unclear what the effects of two cystometrograms will then have on a subsequent PST. Nevertheless, in view of the difficulty of therapy of this disease and its multi-factorial nature, any test that will help shed light upon this difficult diagnosis is of true value; the method of cystometry described in this article is one such test.

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Urodynamic verification of an overactive bladder is not a prerequisite for antimuscarinic treatment response

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BJU Int. 2003; 92: 415-7

Objective: To investigate the place of urodynamics in the evaluation of patients with symptoms of the overactive bladder by comparing the response to antimuscarinic therapy in those with and with no urodynamically verified symptoms.

Patients and Methods: In a prospective observational study, 356 female patients with urinary frequency (8 voids/24 h) and urgency, with or without urge incontinence, underwent cystometry. Patients were diagnosed with detrusor instability if there were spontaneous uninhibited increases in detrusor pressure during bladder filling. All patients regardless of urodynamic findings were subsequently treated with oxybutynin 2.5 mg twice daily and bladder retraining. The outcome was evaluated as the change in urinary frequency and incontinence episodes after 6-8 weeks of treatment.

Results: Among 352 evaluable patients, 266 (75%) had detrusor instability on cystometry and the remainder did not. There was no significant between-group difference in mean age, urinary frequency or the number of incontinence episodes at presentation. Both groups improved equally well during oxybutynin and bladder retraining therapy; after 6-8 weeks there was no significant between-group difference for the mean change from baseline in urinary frequency or incontinence episodes. Tolerability profiles were comparable to the two groups.

Conclusion: Patients with symptoms of an overactive bladder, but apparently normal urodynamic findings, respond equally well to antimuscarinic therapy as those with urodynamically verified symptoms. Such findings cast further doubt on the clinical validity of using invasive urodynamic procedures to characterize patients with irritative lower urinary tract symptoms before starting antimuscarinic therapy.

Editorial Comment

The authors performed a prospective observational study of 356 female patients who reported to their office with urinary frequency and urgency with or without urge incontinence. The authors performed cystometry on the patients and identified those patients with detrusor instability on cystometry and those who did not have detrusor instability. Regardless of cystometric findings, both groups of patients were treated with oxybutynin 2.5 mg twice daily and bladder retraining. Response to therapy was then evaluated for both groups with the results indicating no significant difference between the groups for the mean change from baseline in urinary frequency or incontinence episodes. The conclusion of the authors is secondary to the symptomatic response of patients with apparently normal urodynamic findings; an examination of the value of urodynamics prior to instituting antimuscarinic therapy should be entertained.

The authors raise a valuable point in discussing the need for pretreatment testing in the therapy of the overactive bladder. That a significant number of patients had no detrusor instability on cystometry but still responded to oxybutynin is not surprising; for as Dr. Edward McGuire stated “A routine cystometrogram used to make the diagnosis of detrusor instability is a blunt instrument: if negative, it does not rule out the condition” (1). To put it in other words, that a patient with detrusor instability has a negative CMG is not unusual in view that 50% of patients with motor urgency have a negative CMG. In addition, secondary to this noted phenomenon, there are numerous tactics described in the literature to help increase the cystometric yield rate including a rapid fill (> 100 cc/min) or if the patient is asked not to try to void or prohibit micturition during the filling phase (2). In view of the accepted limits of cystometry, it is clear that this article helps us remember that cystometry does not take the place of clinical judgment but is merely another tool to help clarify the patient’s diagnosis prior to instituting therapy. Is it needed absolutely in all cases of OAB? No. Should it be considered by the specialist in complex cases? Yes.

References

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