Post Radical Prostatectomy Incontinence: 'Treatment Simulating Urodynamic Investigation Technique'

Introduction and Objective: Diverse methods have been published for preoperative urodynamic evaluation of post radical prostatectomy incontinence but standardization is lacking. Cystometry 'until –stress- leakage' misses coexisting lower urinary tract (dys-)function. We designed a standardized urodynamic workup to evaluate the eligibility for surgical therapy: the treatment simulating urodynamic investigation technique (TSUIT).
Materials and Methods: Thirty-nine patients, 66y (53-77) were referred to our tertiary centre and underwent urodynamic testing. We have not focussed on incontinence, but on the storage and emptying capacity by preventing leakage by occlusion of the urethra during cystometry.
Results: With this (TSUIT) we were able to fill until an average capacity of 374 ml (range 150-1000 ml) in these patients (that had usually continuously leaking empty bladders while physically active). There were 42% who had normal bladder storage phase, no detrusor-(over activity) and normal sensation. In 31% storage phase was abnormal because of detrusor over activity and in 27% patients because of reduced compliance. Four patients (7%) had obstructed voiding on pressure flow analysis. Interpretation of results: As a result of our TSUIT diagnosis, concentrating on the situation that is to be expected after restored sphincteric function, we have observed various filling and voiding abnormalities that we would not have seen trough filling until 'only at' (stress or urge) leakage. We are better aware of detrusor behaviour at larger filling and also could perform pressure flow analysis in all patients. We have better been able to direct our treatment. We have observed that TSUIT is feasible, provides plausible and applicable results and causes no extra discomfort to the patient. We propose to consider TSUIT as a (much demanded) standard for workup of patients with (clinical stress) urinary incontinence after radical prostatectomy. However the real advantage of TSUIT over conventional urodynamic technique can only be demonstrated in a comparative prospective trial where also the outcome is measured.
Conclusion: Treatment simulating urodynamic investigation technique (TSUIT) for patients with incontinence after radical prostatectomy is feasible with no (extra) patient discomfort over standard urodynamic technique. The results of TSUIT-diagnosis are relevant for selection of treatment and anticipation of lower urinary tract function after restored sphincter function. TSUIT can be adopted as a new standard diagnostic strategy for patients with incontinence after radical prostatectomy.