

CONTINENCE PROBLEMS AFTER ORTHOTOPIC BLADDER SUBSTITUTIONS IN WOMEN: URODYNAMIC EVALUATION.

Hypothesis / aims of study

Orthotopic neobladder has become the standard of care in properly selected women. In this prospective cohort, we report on the urodynamic data characterizing voiding and continence problems following this operation. In addition, the use of these data in planning treatment is stated.

Study design, materials and methods

Between January 1995 and March 2010, orthotopic neobladders were used in 298 women with a mean age of 52 years. A standard radical cystectomy was conducted and followed by an ileal neobladder. We evaluated these patients for voiding and continence outcome. After the operation, urodynamic evaluation (voiding pouchometry, urethral pressure profile and leak point pressure) was carried out in 125 patients who were eligible for functional evaluation, including 75 women without voiding or continence problems. We used these data to plan treatment of voiding and continence problems after the operation.

Results

Follow-up ranged from 6 to 186 months (median 86). Among the 216 patients eligible for functional evaluation, 44 (20%) had nocturnal incontinence, 15 (7%) stress urinary incontinence, 6 (2.7%) total incontinence and 43 (19.9%) had chronic retention (overcontinence). Urine cultures were positive in 129 (60%). Among cases with nocturnal incontinence, pouch hyperactivity (uninhibited contractions) was noted in 21 women (48%) and the maximal urethral closure pressure and leak point pressure were lower in 7 (16%). Based on these data, these women were treated by imipramine hydrochloride 50 mg at bed time, oxybutinin chloride, tolterodine or buscopan, and antimicrobial treatment for positive cultures. Ten of these women were cured (23%) and 16 improved (36.4%). In addition, pouch hyperactivity was found in 9 women (90%) with nocturnal incontinence on top of chronic retention and 10 (13%) of asymptomatic women. All of the latter patients developed a transient episode of nocturnal incontinence during follow-up. Chronic retention cases were successfully treated by CIC and in those with pouch hyperactivity, oxybutinin or buscopan was added. Pouch hyperactivity in asymptomatic women was similarly treated. Among cases with pouch hyperactivity, cultures were positive in 19 (48%). The maximal urethral closure pressure and leak point pressure were lower in all women with total incontinence than in asymptomatic women. In these women, the option of conversion to a cutaneous diversion was discussed.

Interpretation of results

Pouch hyperactivity represent major role in incontinence problems in this category of patients. Treatment should be tailored according to urine culture and UD findings.

Concluding message

Urodynamic testing can characterize the reasons for voiding and continence problems in most women after orthotopic neobladders. Pouch hyperactivity should be treated once diagnosed in these cases because it is a cause of nocturnal incontinence in 50% of the cases and a good factor in response to treatment. We recommend urodynamic evaluation in cases of abnormal voiding and continence after orthotopic bladder replacement in women.

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Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
Is this a Randomised Controlled Trial (RCT)?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Local ethical Committee, Urology and Nephrology Center, Mansoura University
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes