

## PELVIC FLOOR DYSFUNCTION AND POSTERIOR COMPARTMENT RECONSTRUCTION : IS URODYNAMIC EVALUATION NECESSARY ?

### Hypothesis / aims of study

The aim of pelvic floor reconstruction is the restoration of functions of the three compartments of the pelvic floor, which share anatomical structures. Although urodynamic evaluation is advised before simple anti-incontinence surgery, such an exam is routinely realised for a complex pelvic relaxation and reconstruction. The existence of occult urinary incontinence is generally accepted and reported in cases of severe anterior prolapse (cystocele) or posterior compartment prolapse (compressive rectocele). Since the aim of the surgeon is a one procedure reconstruction of pelvic floor, the aim of this study is to evaluate the usefulness of urodynamic evaluation before posterior compartment reconstruction.

### Study design, materials and methods

Were included all patients who had a urodynamic evaluation before a surgical reconstruction of posterior compartment during a period of three years (from January 1999 to February 2003). A multivariate Fischer's exact and Pearson's analysis were used. Fifty two patients were included, with a median age of 60 years. Of these 71% (n=37) had some degree of urinary incontinence (U.I) and 34% (n=18) had fecal incontinence. Of 46 patients (88%) who had a varying type of cystocele, 46% (n=24) had a degree II and 8% (n=4) had a degree III cystocele. Forty five patients (86%) had at least a type II rectocele. Of these 38% (n=20) had a posterior colpogrraphy, 6% (n=3) had a rectopexy and 48% (n=25) had a modified Zaccharin operation (Marti-Zaccharin) for a high rectocele with a rectal prolapse and/or intussuception.

### Results

Urodynamics concluded in mixed UI in 27% (n=9), stress U.I in 63% (n=21) and Urge U.I in 9% (n=3); with an average leak point pressure of 69 cmH20. Urological treatment consisted in periurethral collagen injection in 4% (n=2), colposuspension in 4% (n=2) and sling operation in 48% (n=25). Anterior colpogrraphy was realised in 23% (n=12) and vaginal

### Interpretation of results

Of 15 patients who did not have any history of U.I, urodynamic evaluation unmasked a stress U.I in 13% (n=2). Of 19 patients who did not have a history of stress U.I (isolated or mixed), urodynamic evaluation unmasked 16% (n=3) of them. Of 33 patients who had a history of stress U.I (isolated or mixed) urodynamic evaluation confirmed the history in 82% (n=27) and did not confirm the diagnostic of stress U.I in 18% (n=6).

### Concluding message

Precise and repeated history remains the best clinical tool for diagnosis of stress U.I even in patients with a complex pelvic floor dysfunction interesting specially the posterior compartment. In case of negative history of U.I, of any type, a diagnosis based over history alone is associated with a 13% misdiagnosis. In case of a positive history of U.I, of any type, urodynamic evaluation modifies the definitive diagnosis, compared to history alone, in between 12% to 17% of cases. Except the history ( $p=0,000$ ), statistical analysis did not show, in this study, any clinical tool powerful enough to diagnose a U.I or the type of incontinence. Based upon previous studies, one should be alert of occult U.I in case of degree III cystocele and potential compressive rectocele, which could also, both generate urinary flow dysfunction. Fecal incontinence has been also reported to be frequently associated with U.I.