

## URINARY INCONTINENCE AND UTERINE FIBROMA. IS THERE A CORRELATION?

### Aims of study

To analyze the effect on micturition function of an uterine fibroma in women with urinary incontinence as suggested by the reported improvement of incontinence by simple hysterectomy [1].

### Methods

Between a urodynamic database of 630 consecutive women, we retained 22 files of women (age range: 32-62 years) with urinary incontinence and uterine fibroma. Each patient underwent one urodynamic session including free uroflow (FF), resting urethral pressure measurement (UPP) and cystometry (half sitting position, filling rate 50 mL/min, fluid at room temperature). In 9 cases a second FF at maximum bladder capacity was obtained.

Modelized analysis of FF recordings was made using the VBN micturition method [2]. Two parameters were evaluated: one, g, to quantify the cross section of the urethra (normal value  $g = 1$ , constrictive obstruction  $g < 1$ , gaping urethra  $g > 1$ ) and the other, F40, to a global evaluation of the detrusor excitation efficiency (normal value  $F40 = 1.0$ , excitation shorter than normal  $F40 < 1.0$ ).

### Results

1) For 18 patients the presence of an uterine fibroma was known; for 11 of them, urodynamics was required as preoperative evaluation. For the 4 other women, uterine fibroma was revealed during the physical examination. Incontinence was stress incontinence in 21 patients (95%) and mixed incontinence in one. Levator ani strength was estimated as normal in 13 patients (59%), impaired for the others. 2) Maximum urethral closure pressure vs age was normal in 11 patients, increased in 9, reduced in 2. Functional urethral length was normal in 18 patients and reduced in 4. Urethral instability was found in only one patient. 3) Normal detrusor function was observed in 16 patients (73%) and overactive detrusor found in only one patient. 4) Significant obstruction was identified in 16 patients (VBN urethral parameter  $g < 0.8$ ); only one case of gaping urethra. Detrusor efficiency (VBN F40 parameter) was similar to that of a control group with only urinary incontinence.

### Conclusions

Although uterine fibroma does not significantly modify the usual urodynamic parameters it induces a urethral obstruction which modify the VBN urethral parameter g. This obstruction is not specific of uterine fibroma. So, physical examination must be done carefully in women with incontinence complaint in order to detect the presence of an uterine fibroma. Modelized analysis of free uroflows allows to quantify the degree of obstruction due to the fibroma. This approach can be useful in the choice of treatment.

[1] Hinyokika Kyo 1993; 39(9): 797-800.

[2] Neurourol Urodyn 2000; 19: 153-176.