

## URETHRAL OVERDILATION FOR MANAGEMENT OF NON ANATOMICAL FEMALE URETHRAL OBSTRUCTION

### Hypothesis / aims of study

To report our experience in the management of idiopathic non anatomical bladder outlet obstruction in women.

### Study design, materials and methods

We performed a retrospective review of 20 women with symptoms of bladder outlet obstruction between 2008 and 2012. Eight of these patients had diagnosis of idiopathic functional obstruction, based on clinical features and confirmed by videourodynamics (mean detrusor pressure at maximum flow rate (Q<sub>max</sub>) of 81.25cmH<sub>2</sub>O and mean Q<sub>max</sub> of 7.63). Anatomical obstruction was excluded by the admission of an 18 Fr catheter without dilatation. Sonography, cystoscopy and voiding cystography were also performed during evaluation. Patients with history of radiotherapy to the pelvis, malignancy or neurological disorders were excluded. Initial treatment consisted of urethral dilation up to 30F under sedation, with 5 days of 24F Foley catheter. Patients were seen at 1 month, 3 to 6 months post-operative and yearly thereafter, according to evolution. American Urological Association (AUA) symptom scores were obtained at presentation and at each follow-up, as well as uroflowmetry and post-void residual urine measurement.

### Results

Symptoms improvement and increase on uroflowmetry was initially observed in all patients. Preoperative mean Q<sub>max</sub> increased from 7.63 ml/s to 15.3 mL/s ( $p < 0.05$ ), and the mean post-void residual urine volume had decreased from 164.9 mL preoperatively to 1.25 mL ( $p < 0.05$ ). Preoperative mean AUA symptom score was 31.25 and postoperative was 15.87 ( $p < 0.05$ ). Mean follow up was 12.5 months. Recurrence occurred in five patients after 1, 3, 5, 6 and 36 months and three of them had a second similar procedure; one of them required additional periodical urethral self-dilation. Other 2 patients also needed urethral self-dilation monthly. None patients developed urinary incontinence. Only 3 patients did not required additional treatment at the moment.

### Interpretation of results

Non anatomical non neurogenic female bladder outlet obstruction constitutes an uncommon situation among women with BOO, out of the diagnosis of urethral strictures. Urethral overdilation represents a safe and minimal invasive alternative to manage these patients. Results are limited, but may be an alternative before more aggressive approach as bladder neck incision.

### Concluding message

Female BOO can be grouped into anatomical and functional causes. Functional causes may occur from primary bladder neck obstruction, pelvic floor dysfunction, or detrusor-sphincter dyssynergia [1]. Despite recurrence or need of self catheterization after urethral overdilation, it provides significant improvement in quality of life.

Clinical data of patients with non anatomical urethral obstruction

Patient	Age (years)	Previous pelvic procedure	Preop. AUA-SS	Preop. Qmax (mL/s)	Preop. Pdet at Qmax (cmH2O)	Preop. post-void residual urine (mL)	Postop. AUA-SS	Postop. Qmax (mL/s)
1	67	Perineoplasty	28	4.3	160	335	17	13.7
2	56	Perineoplasty	28	6.8	104	5	21	8.6
3	49	None	34	11	64	380	18	18
4	54	Perineoplasty	32	15	71	125	24	26
5	47	None	34	6	55	50	4	12.4
6	55	Cesarean	30	3	79	300	14	7
7	30	None	31	8	60	4	14	26.7
8	57	None	33	7	57	120	15	10

References

1. Carr LK, Webster GD: Bladder outlet obstruction in women. Urol Clin North Am 1996, 23: 385– 391

Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** It is a retrospective study and involves data. All data obtained during this research protocol will be confidential and the confidentiality and privacy of all patients will be maintained. If the test results become published, the identity of all patients will remain confidential, as required by the rules **Helsinki:** Yes **Informed Consent:** No