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Title: TREATMENT OF FEMALE VOIDING DYSFUNCTION WITH ALPHA-BLOCKER MEDICAL MANAGEMENT: Urodynamic Assessment and Clinical Outcomes

Aims of Study:

To evaluate treatment of female voiding dysfunction with the use of alpha-blocker medical management.

Methods:

31 females with lower urinary tract symptoms were classified as having bladder outlet obstruction. The etiology of bladder outlet obstruction was classified into the following groups on the basis of history and multi-channel videourodynamic (UDS) testing: Functional (FDV), Neurogenic (NGB), Post-operative Bladder Suspension (BNS). Follow-up was at 1 month after initiation of medication, and then at 3-6 month intervals. Success was defined as $\geq 50\%$ reduction in symptoms and residual urine (PVR).

Results:

The average age was 53 years (21-81), and average follow-up is 17 months (6-39). Side effects (SA) limited treatment in 5/6 patients who were converted to Tamsulosin. 4 patients did not tolerate therapy due to SA. 15 patients currently take Tamsulosin, and 1 Doxazosin (N=16). The etiology of bladder outlet obstruction is classified as 11 (40.1%) FDV, 7 (25.9%) NGB, and 9 (33.3%) BNS. The urodynamic findings of the patient groups are summarized below:

	Max. Pdet (cm H ₂ O)	Qmax (cc/sec)	Intermittent Flow (pattern)	EMG Activity (increase)	Fluoro Image Dilated Urethra (DU) Closed Bladder Neck (CBN)
FDV (11)	61.8	10.3	10	6	9 DU; 2 CBN
NGB (7)	60.3	11.2	6	4	3DU; 2CBN
BNS (9)	44.5	9.3	2	0	1DU;2CBN

Of the 11 patients with FDV, 6 presented with a previous diagnosis of interstitial cystitis and 1 in retention. 9/11 responded successfully to medication. PVR reduced 140 to 36cc ($p = 0.02$). Of the 7 NGB patients, 5 presented with incontinence and 2 in retention. 4/7 responded successfully to medication. PVR reduced from 106 to 60cc ($p = 0.06$). All BNS patients presented with difficulty voiding. The most prevalent UDS findings were poor flow and increased voiding pressure. Only 3/9 patients responded to medication, and 5 required urethrolisis.

Conclusions:

Lower urinary tract dysfunction in females may be treated successfully with alpha-blocker therapy. Videourodynamics enhance detection of abnormalities in sphincter function, which is prevalent in patients with FDV and NGB who have an excellent response to alpha blockade. As expected, patients following BNS do not fare as well with medical therapy, and many will require formal urethrolisis.

Source for Funding: none.