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Title (type in
CAPITAL
LETTERS) **α 1-ADRENERGIC BLOCKING DRUGS ON
NEUROGENIC VOIDING DIFFICULTY DUE TO
MULTIPLE SYSTEM ATROPHY**

Objectives - Neurogenic voiding difficulty is a troublesome symptom in patients with multiple system atrophy (MSA). When it exacerbated and post-micturition residuals increased, clean intermittent self-catheterization (CIC) should be required. However, some patients were unable to do so because of severe limb ataxia and/or parkinsonism. We tried to use α 1-adrenergic blockers for voiding difficulty in patients with MSA, which have relaxation effects on the urethral sphincter.

Methods - We recruited 65 patients with MSA who had voiding disorder, and 63 had voiding difficulty and 60 had post-micturition residuals. Fifteen patients had orthostatic faintness as well. EMG cystometry revealed detrusor hyperreflexia in 39, low compliance detrusor in 20 and detrusor-sphincter dyssynergia in 28 of the patients. α 1-blockers were given these patients for over 4 weeks including prazosin hydrochloride (1-6 mg/day), a non-selective α 1-antagonist, and moxislyte hydrochloride (30-90 mg/day) and tamsulosin hydrochloride (0.4-0.8 mg/day), α 1A-selective antagonists.

Results - Improvement of urinary symptoms and reduction of post-micturition residuals over 25% were noted in 43% and 67% of prazosin, 27% and 33% of moxislyte, and 44% and 60% of tamsulosin group, respectively. Of these patients, post-micturition residuals became less than 100 ml, which enabled patients to stop CIC, in 22% of prazosin, 33% of moxislyte and 20% of tamsulosin group. Adverse effects (urinary frequency, incontinence and/or orthostatic faintness) appeared in 61% of prazosin, 18% of moxislyte and 44% of tamsulosin group, respectively, which disappeared shortly after termination of the drugs.

Conclusion - Though patients with MSA are susceptible for orthostatic faintness by α 1-adrenergic blockers, careful selection and observation of the patients may enable to improve neurogenic voiding difficulty and to stop CIC.