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Title: EFFECT OF PERGOLIDE ON MICTURITION DISTURBANCE IN PARKINSON'S DISEASES

Aims of Study:

The exact effects of pergolide (D1/D2 antagonist) on micturition have not yet been ascertained even though pergolide is the useful therapy for patients with Parkinson's disease (PD).

Methods: We evaluated the effect of pergolide on micturition disturbances in 13 PD patients with or without the wearing-off phenomenon. All patients was taking anti-parkinsonian drugs. We performed a detailed questionnaire on urinary symptoms and urodynamic studies before and about 3 hours after the 250-750 mg of pergolide administration.

Results:

Before administration of pergolide, urinary urgency was noted in 13 patients, urge incontinence in 8, and voiding difficulty in 8. After administration of pergolide, urinary urgency exacerbated in 3, improved in 1, and unchanged in 9. Urge incontinence exacerbated in 2, improved in 1, and unchanged in 10. Voiding difficulty improved in 4 and unchanged in 9. In comparison with the phase before pergolide administration, the following changes were noted in the urodynamic studies after that: decreased mean bladder volume threshold for detrusor hyperreflexia, increased mean maximum detrusor pressure of detrusor hyperreflexia, decreased mean maximum bladder capacity, increased mean AG number, and increased mean maximum urethral closure pressure. Mean residual urine volume and maximum Watts Factor were unchanged.

Conclusion:

In PD patients, pergolide exaggerated detrusor hyperreflexia and decreased bladder capacity in the filling phase, and pergolide augmented urethral obstruction (resistance and static closure pressure) in the voiding phase. However, it did not change residual urine volume and detrusor contractility. These findings may reflect central and peripheral D1/D2 dopaminergic action of pergolide.