Bladder dysfunction in Parkinson's disease treatment

see also Parkinson's disease treatment.

Urodynamic testing allows the determination of the underlying bladder disorder and may help in the treatment selection. Pharmacologic interventions especially anticholinergic medications are the first-line option for treating OAB in patients with PD. However, it is important to balance the therapeutic benefits of these drugs with their potential adverse effects. Intra-detrusor Botulinum toxin injections, electrostimulation were also used to treat OAB in those patients with variable efficacy. Mirabegron is a β3-agonist that can also be used for OAB with superior tolerability to anticholinergics. Desmopressin is effective for the management of nocturnal polyuria which has been reported to be common in PD. Deep brain stimulation (DBS) surgery is effective in improving urinary functions in PD patients. Sexual dysfunction is also common in PD. PDE5 inhibitors are first-line therapies for PD-associated erectile dysfunction (ED). Treatment with apomorphine sublingually is another therapeutic option for PD patients with ED. Pathologic hypersexuality has occasionally been reported in patients with PD, linked to dopamine agonists. The first step in the treatment of hypersexuality consists of reducing the dose of dopaminergic medication [1].

Regarding bladder management, there are no large, double-blind, prospective studies in this area. It is well recognized that dopaminergic drugs can improve or worsen LUTS in PD patients. Therefore, add-on therapy with anticholinergics is required. Beta-3 adrenergic agonists are a potential treatment option because there are little to no central cognitive events.

Medications that work to block or reduce bladder overactivity can be useful in treating urinary frequency and urgency. These include oxybutynin, tolterodine, solifenacin, and darifenacin. These medications are not helpful for problems emptying the bladder and may actually aggravate the difficulty. Medications such as bethanechol can help, but intermittent self-catheterization is sometimes necessary.

Newer interventions, such as deep brain stimulation (DBS), are expected to improve bladder dysfunction in PD. Botulinum toxin injections can be used to treat intractable urinary incontinence in PD. Transurethral resection of the prostate gland (TURP) for comorbid BPH in PD is now recognised to be not contraindicated if MSA is excluded. The collaboration of urologists with neurologists is highly recommended to maximise a patients' bladder-associated QOL [2].

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2)
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