



Postural Hypotension in Parkinson's disease

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Postural hypotension is not an uncommon complaint among patients with Parkinson's disease (PD). Patients often report light-headedness or a sense of fainting when assuming an upright position such as rising from a chair or getting out of bed. Autonomic dysfunction in PD is the main cause of postural hypotension. A 20 mmHg drop in the systolic blood pressure, and a 10 mmHg drop in the diastolic pressure upon assuming an upright position after being supine are considered significant.¹

Postural hypotension does not start early in the course of PD. If postural hypotension occurs at the onset of PD, other conditions like multiple system atrophy (MSA) should be considered in the differential diagnosis. The mechanisms causing postural hypotension are different in MSA and PD.² In MSA, the pathology may be related to the central autonomic nervous system, whereas in PD, there is peripheral sympathetic cardiovascular denervation that is responsible for postural hypotension. Postural hypotension is more frequent in PD patients with dementia as compared to PD patients without dementia. Postural hypotension may also manifest in Lewy body disease, suggesting that Lewy body pathology may be related to neocortical and limbic structures as well as the peripheral autonomic nervous system.³

Orthostatic hypotension may be exacerbated by dopaminergic treatments, and may not always be symptomatic. The treatment of orthostatic hypotension should be considered only once it becomes symptomatic and starts to interfere with the daily living activities. Supine hypertension may result as a complication of treatment of orthostatic hypotension.^{4,5}

Midodrine is an alpha agonist that acts peripherally both on the arterial and venous systems. In about 5 percent of patients, it may cause supine hypertension, but because of its short half-life, it may be taken intermittently on an as required basis. A dose of 2.5 to 10 mg, three times daily before meals may be sufficient. Fludrocortisone increases sodium reabsorption and potassium secretion resulting in increased blood volume and cardiac output. It is started at a dose of 0.1 mg 1-3 times daily, and may be later increased. Side effects include supine hypertension, edema and hypokalemia. Other medications used for postural hypotension include Etilefrine, Indomethacin, L-Thyro-3, 4 Dihydroxyphenylserine (L-DOPS), somatostatin analogue octreotide, vasopressin analogue desmopressin (which may be used in tablet form or as a nasal spray), and Dihydroergotimin.

Furthermore, the non-pharmacological strategies given below have been suggested to help patients to improve their symptoms:

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- Ruling out other contributing medications, such as diuretics, beta-blockers and anti-hypertensive medications.
- Increasing fluid-intake.
- Elevating the head of the bed.
- Rising slowly from supine or sitting position.
- Using thigh-high elastic compression stockings.
- Avoiding alcohol-intake, and excessive exercise.
- Taking special precautions after heavy meals or hot showers.
- Free salt intake if there is no history of hypertension.

Since postural hypotension may result in balance problems and falls, patients should be screened actively.^{6,7} The timely management of this problem will improve the quality of life for the patients.

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