



BLOOD PRESSURE PROFILES AND AUTONOMIC DYSFUNCTION IN PARKINSON'S DISEASE: A RETROSPECTIVE ANALYSIS OF 24-HOUR AMBULATORY MONITORING AND ORTHOSTATIC RESPONSES IN AN ELDERLY POPULATION

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Introduction. Parkinson's disease (PD) is frequently associated with cardiovascular autonomic failure, leading to significant blood pressure (BP) dysregulation. Patterns such as orthostatic hypotension (OH) and impaired nocturnal dipping increase the risk of falls and cardiovascular events in elderly patients.

Objectives. To evaluate the 24-hour BP profile and orthostatic responses in PD patients compared to non-PD controls in a cardio-geriatric setting.

Materials and Methods. This retrospective study analyzed data from 397 elderly subjects (57.7% female; mean age 74.04 ± 10.54 years) at Baggiovara Hospital; PD patients represented 12% of the sample. Subjects underwent 24-hour Ambulatory BP Monitoring (ABPM) and orthostatic testing. Multivariate logistic regression identified independent associated factors of PD, adjusting for age, sex, BMI, and antihypertensive therapy.

Results. PD patients exhibited a significantly more pro-

nounced systolic BP drop at 1-minute orthostatism (11.46 vs 3.07 mmHg, $p=0.006$). A key finding was the severe impairment of circadian rhythm; an inverted dipping phenotype was significantly more frequent in the PD group (57.1% vs 28.0%, $p=0.008$). Consequently, PD patients showed significantly higher nocturnal mean BP compared to controls, involving both systolic (135.31 vs 128.87 mmHg, $p=0.027$) and diastolic values (73.80 vs 67.76 mmHg, $p=0.002$). Additionally, post-prandial hypotension was more frequent in PD (76.5% vs 45.6%, $p=0.001$). In the multivariate model, the 1-minute systolic BP drop remained significantly associated to PD (OR: 1.054; $p<0.001$).

Conclusions. Elderly PD patients demonstrate a specific dysautonomic BP phenotype. The association between severe orthostatic drops and nocturnal hypertension—driven by an inverted dipping profile—highlights a profound failure of autonomic homeostasis independent of common geriatric confounders.