

# COMPARISON OF AMBULATORY CENTRAL AND PERIPHERAL BLOOD PRESSURE BETWEEN THE SECOND AND THIRD DAY OF THE LONG INTERDIALYTIC INTERVAL IN HEMODIALYSIS PATIENTS.

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## Background & Objectives:

The conventional thrice-weekly hemodialysis schedule includes two regular (about 2 days) and one long (about 3 days) interdialytic interval periods. During the long interval patients have to deal with a larger amount of metabolic products and volume accumulation and recent data suggest that the end of the 3-day period associates with the highest cardiovascular risk<sup>1-4</sup>. This study compared for the first time ambulatory central blood pressure between Day 2 and Day 3 of a long interdialytic interval.

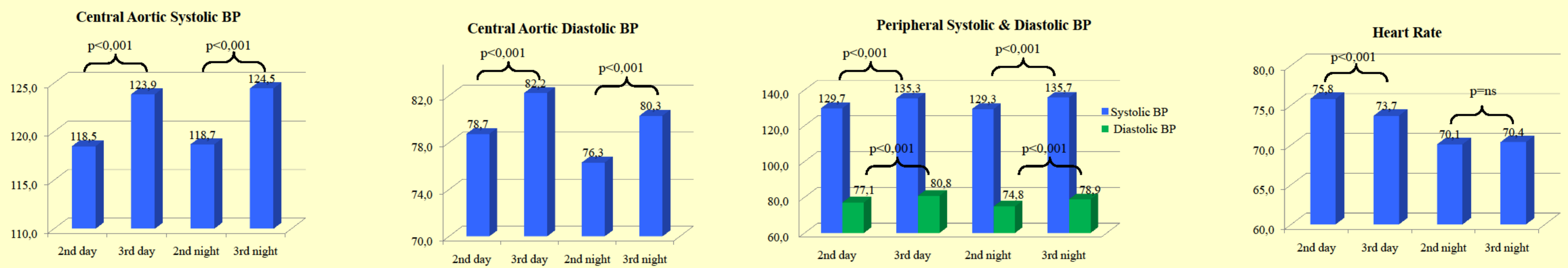
## Patients & Methods:

Fifty five end-stage renal disease patients receiving conventional hemodialysis (mean age 63.8 ± 1.8 years and median time on renal replacement therapy 29 months) were included in the study. All underwent a 72-hour Ambulatory Blood Pressure Monitoring covering the large interdialytic interval, with the novel Mobil-O-Graph device (IEM, Stolberg, Germany). Mobil-O-Graph is a validated brachial cuff-based automatic oscillometric device that records brachial BP and pulse waveforms and calculates central BP through mathematical transformation. Daytime and night-time ambulatory BPs of Day 3 vs Day 2 were compared.

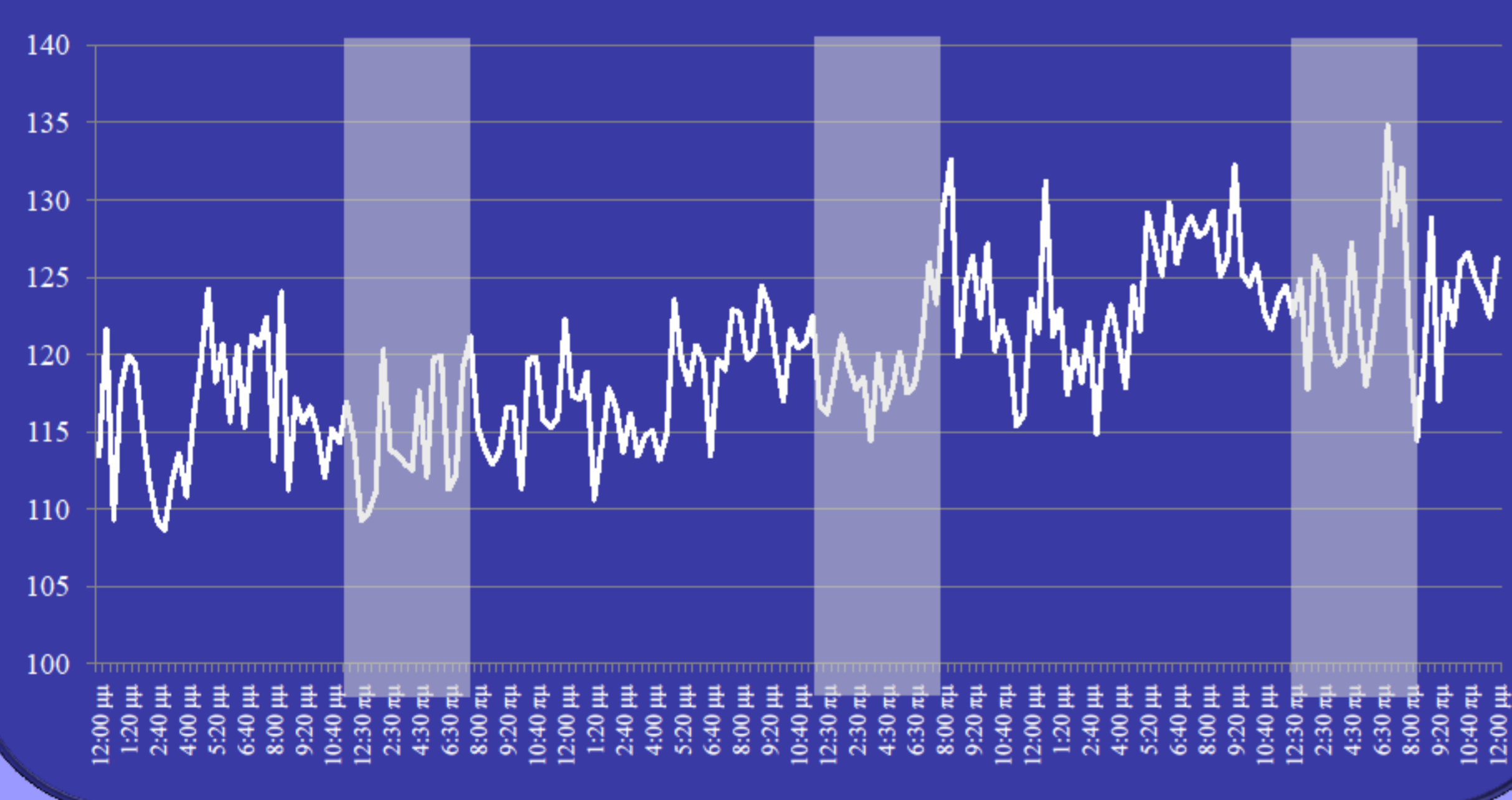


## Results

This is an ongoing study, more patients were enrolled, so we are presenting to you results from 55 patients.



## Mean Aortic Systolic BP



## Dippers

	Systolic BP	Diastolic BP	Both
1st night	15	22	14
2nd night	6	11	6
3rd night	7	11	5
All nights	1	1	1

32 patients needed increase at their antihypertensive drugs specifically for Day 3

## Conclusions:

This is the first study evaluating central BP during a 72-hour interval in hemodialysis patients. The significant increase in central BP during Day 3 follows the same pattern with that of peripheral BP and may be a major mechanism of elevated cardiovascular risk at the final hours of the week in this population.

## References:

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