



India Heart Study – HIS

Kapardhi PLN

Apollo Hospitals, University of Health sciences, India.

Abstract:

Background: Measurement of BP is essential for diagnosis of hypertension. There is limited information in India on the type of instrument (mercury, aneroid and oscillometric) used to measure BP. In a newly diagnosed treatment-naive hypertensives the prevalence of white coat hypertension (WCH), masked hypertension (MH), and atrial fibrillation (AF), when both office and home BP measurements are measure is not known.

Objective: The study the prevalence of WCH and MH by comparing Office BP Measurement (OBPM) with Home BP Measurement (HBPM) in an Indian primary care setting in real world treatment naive subjects with and without hypertension.

Methods: An observational study comprising 18,918 treatment naive subjects with and without hypertension from 1233 primary care clinics across India were included between June 2018 and April 2019. OBPM (Visit 1) was performed by practioner's. In addition patients also underwent 7 days HBPM using the oscillometric BP measurement by "Microlife Watch BP Home device" and then another OBPM (Visit 2) was performed. This device also has a validated AF screening algorithm.

Results: The age range was 42.6+11.7 years and male: female 63:37%. hypertension diagnosis based on OBPM visit 1 is inadequate because 2nd OBPM reading showed a discrepancy in 32% cases. The evening BP was higher than the morning Systolic BP (127.8 ± 14.7 vs 129.8 ± 15.3 , $p < 0.001$) mm Hg and Diastolic BP (81.9 ± 10.1 vs 82.4 ± 10.2 , $p < 0.001$) mmHg. Considering visit 1 and HBPM, the prevalence of WCH was 24%. On the other hand, 18% of the participants had masked hypertension. More than half of the participants, had an elevated resting heart rate (79.8 ± 9.6 bpm). Elevated heart rate was more frequent in WCH. AF was found in 1027 subjects (5.7%) based on CHA2DS2 score. Of the type of instruments used for OBPM, 69% were mercury sphygmomanometers, 22% aneroid and only 9% were oscillometric ones.

Conclusion: The prevalence of WCH and MH in India is higher in comparison with global data which has therapeutic implications. The diagnosis of hypertension based on office blood pres-



sure measurements alone can be fallacious. The evening BP was higher than the morning. Elevated resting heart rate may mean a reconsideration of the use of heart rate lowering anti-hypertensive drugs among Indian hypertensives. HBPM with a validated oscillometric BP measuring device should be preferred over mercury instruments which are still being used in 69% cases for OBPM, despite being banned in India since December 2017.

Biography:

Senior Consultant Cardiologist – Apollo Hospitals, Hyderguda, Hyderabad. Director Cathlab – Apollo Hospitals, Hyderguda, Hyderabad. Rich experience in Complex Coronary Interventions, Chronic Total Occlusions, Left Main & Bifurcation interventions and Cardiac Device therapy. Special Interest in Coronary Imaging and Complex Coronary Interventions. Special Work in Cardiac Stem cell therapy.

Recent Publications:

- Anomalous Origins of Right Coronary and Left Anterior Descending Coronary Arteries : Angiographic Profiles
- Free-Floating Ball Thrombus in Left Atrium.
- Safety of thrombolytic therapy following acute myocardial infarction in patients above 65 years
- A family with arrhythmogenic right ventricular dysplasia

International Conclave on Hypertension and Healthcare | July 19, 2020 | Veinna, Austria.

Citation: India Heart Study – HIS - Kapardhi PLN; India.; Hypertension Conclave 2020; July 19, 2020; Vienna, Austria.