

Editorial

Beyond blood pressure measurement in the office setting

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Hypertension (HT) retains its first place among preventable causes of death in the world. In a metaanalysis encompassing nearly more than one million adults, it has been clearly demonstrated that every 20/10 mm Hg increase in systolic/diastolic blood pressure (BP) starting from 115/75 mm Hg leads to 2-fold increase in cardiovascular mortality rates. [1] Currently, both in the diagnosis, evaluation of the treatment, and follow-up of HT, office BP measurement is still the recommended method. Besides, in almost all clinical studies, the effectiveness of antihypertensive treatment has been assessed with changes in the office BP measurements. However 24-hour ambulatory BP monitoring (ABPM) can establish the diagnosis of HT accurately. In addition, strong evidence exists concerning the presence of a closer relationship between target organ damage, and cardiovascular endpoints. [2, 3] On the other hand, ABPM allows exclusion of “white coat hypertension “ seen in approximately 15-25 % of the adult population, and detection of cases of “masked HT” where daytime increases in normal BP levels recorded during office measurements occur. Indeed, evidence suggests that cases with “masked HT”, and those with clinically uncontrolled BP carry similar risks. [4]

Under normal conditions, BP is expected to decrease at a rate of 10-25 %, during night hours. If expected drop in BP is less than 10 %, then it is termed as non-dipping BP, and hypertensive cases are classified as dipper, and non-dipper based on the extent of nighttime decrease in their BPs.

Abbreviations

ABPM, Ambulatory blood pressure monitoring

HT, Hypertension

BP, Blood pressure

SUT, Position Statement on Health Practices

Although, antihypertensive treatment ensures similar drops in day-, and night time BPs, night time drop in BP has more prognostic value. Therefore, 24-hour ABPM is relatively important in determining the variations in BP, and degree of night time decrease in BP both at the time of diagnosis, and during various phases of the treatment. Under the light of these information, the most currently published 2012 Canadian HT Guidelines absolutely recommends 24-hour ABPM. [4] These Guidelines emphasize the importance of night-, and daytime BP measurements, in consideration of the difference between these values, and detection of increase in BP during morning hours, and variations in BP. In short, they recommend more frequent use of ABPM both during the diagnostic workup, and monitorization of the patients.

The study by Kozan *et al.* [5] published in the 6. issue of Journal of Archives of Turkish Society of Cardiology (TKDA) (2012; 40: 481-90) in 2012, contains striking information about 24-hour ABPM measurements of 940 hypertensive patients whose BPs were assumed to be under control. In 65 % of the antihypertensive patients enrolled in the study, BP was detected to be under control. However in 35 % of the patients targeted BP levels could not be achieved.

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BPs could not be kept under control in 60 % of the cases which was suggestively attributed to insufficient drug dosage. Another striking outcome of the study is rates of non-dipping BP. Rates of non-dipping systolic, and diastolic BP were reported as 62, and 47.4 %, respectively. Although in the literature, rates of non-dipping BP were reported to range between 10, and 40 %, in another study performed in our country this rate was found to be over 40 percent.^[6] Lower rates of controlled BP, and higher rates of non-dipping BP is an inevitable phenomenon in consideration of the undeniable facts of excessive salt consumption, increasing rates of obesity, and metabolic syndrome, decreased home BP measurement rates, rarely applied combination therapy, and poor patient compliance to therapy. Therefore, for our country, ABPM is obviously more useful both during diagnostic workup, and follow-up. The last amendment of Position Statement of Health Practices (SUT) published by The Institute of Social Security contains resolutions which aim to decrease cost of treatment, but in fact these resolutions will adversely affect cost-effectiveness in the long-term. Accordingly, the modified SUT enforced on July 7, 2012 (http://www.Officialgazette.gov.tr/former_issue/2012/06/20120622-24.htm, Supplement-8), stipulates reimbursement of ABPM only once a year. If we consider the cost incurred by the development of one cardiovascular event or progression on an end-stage organ failure because of inadequate treatment of one hypertensive patient, as an indubious fact, the authorities should perform more comprehensive analyses before taking this resolution. As physicians, our duty should be to warn the authorities who will make such decisions, and also encourage patients more strongly to control their BPs at least at home

Conflict of interest: None declared

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