


How Should Circadian Blood Pressure Variation Be Determined?

I read with great interest the recent editorial by Dr. Pickering entitled "How Should Diurnal Changes of Blood Pressure Be Expressed?" He notes that two techniques are used most often to determine the period of nocturnal decline in blood pressure (BP): 1) the diary method; and 2) arbitrarily defined time periods, such as recommended by Scientific Committee of the International Conference on Ambulatory Blood Pressure Monitoring. Dr. Pickering makes a case for the diary method. However, I would suggest that the method chosen should depend on the purpose of the study.

I agree with Dr. Pickering that the diary method is preferable if the purpose of the study is to examine behaviorally-induced changes in BP, including sleep, as in the work of Dr. Pickering and his colleagues. However, my 17 years of experience of personally entering diary information for BP recordings from over 2,000 diaries in Dr. Pickering's laboratory and my own has taught me the limitations of this technique, particularly in pediatric studies. Many subjects considered the diary a nuisance and provide only minimal entries, including sleep times. This was true particularly for youths who often provided less than five entries. The diary method requires that the subject reliably reports the time of sleep onset and the time of awakening. Clearly, the former is not possible and in many cases neither is the latter, particularly for myopic individuals. Third, inherent in this approach is the assumption that the subject remains in bed and asleep for the entire nighttime period. Often, this was not the case, but subjects rarely recorded this in their diary.

Specified time intervals are preferable for studies measuring the BP changes or load over a defined period. In addition, this method is preferable for studies examining the influence of long-term BP control systems. It does not have the difficulties or make the assumptions indicated above for the diary technique. It simply provides an estimate of the BP over that period of time, independent of the activity of the individual. This is an important point, because it is the BP that is the focus of these studies, not the activity cycle. However, it is important not to refer to these periods as "awake" and "asleep" for the reasons pointed out by Dr. Pickering. In our studies we now define periods of "daytime" and "nighttime."

REFERENCES


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Fluoxetine's Effect on Biochemical Screening for Pheochromocytoma

The biochemical diagnosis of pheochromocytoma is made by screening for an increased urinary excretion of total metanephrines (metanephrine and normetanephrine) and confirmation with measurements of the excretion of fractionated catecholamines (norepinephrine, epinephrine, and dopamine) and other metabolites (vanillyl mandelic acid, VMA). Unfortunately there are situations and drugs that can interfere with this biochemical diagnosis. One class of drugs known to alter catecholamine metabolism is tricyclic antidepressants, possibly by decreasing whole-body norepinephrine turnover. Little is known definitively about the effects of the newer antidepressants, such as fluoxetine, on the excretion of catecholamines and their metabolites. Therefore, we decided to evaluate the effects of fluoxetine on screening laboratory tests used to diagnose pheochromocytomas.

METHODS

Individuals 18 years and over who were being seen for the evaluation of psychiatric problems were recruited to participate in this study. These individuals had received recommendation to either take fluoxetine for their psychiatric problems or withdraw from fluoxetine due to side effects or ineffectiveness in the treatment of their psychiatric problems after a minimum of 1 month exposure.

After agreeing to participate, these individuals were instructed to collect an acidified 24-h urine sample (beginning after the first morning void through the