Letter to the Editor

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Ambulatory Blood Pressure Monitoring and Body Mass Index: Good but Not Standardized!

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Dear Editor,

We have read with interest the article entitled 'Ambulatory blood pressure parameters in office normotensive obese and non-obese children: relationship with insulin resistance and atherosclerotic markers' by Tekin et al. [1]. The authors showed that normotensive obese children had higher ambulatory blood pressure (BP) parameters. A high low-density lipoprotein cholesterol to high-density lipoprotein cholesterol ratio and night-time systolic BP were associated with an increased risk of being obese. High low-density lipoprotein cholesterol to high-density lipoprotein cholesterol ratios and total cholesterol to high-density lipoprotein cholesterol levels in children and adolescents may be risk factors for night-time hypertension.

Hypertension is a major health problem in the adult population worldwide [2] and has recently also become an important condition in childhood. The prevalence of overweight and obesity in the adolescent population has increased substantially. Childhood obesity is a predictor of an increased rate of death, due primarily to an increased risk of cardiovascular disease and risk factors including hypertension. Ambulatory BP monitoring is a more accurate method of excluding white coat hypertension in subjects with higher BP measurements in the doctor's office. Also, it can give more information about all-day BP levels, especially night BP levels. Hence, the study by Tekin at al. [1] provided important information about childhood BP and that obesity could be related to night-time systolic BP. However, some comments are in order. Firstly, in this study, if the authors had excluded some clinical diseases, including secondary hypertension that is usually seen in these study groups, it would have been better. Secondly, the authors did not analyse the distribution of body fat and its impact on ambulatory hypertension as an isolated change in abdominal obesity, without any changes in total obesity (i.e., body mass index) [3]. Finally, ambulatory BP monitoring was used with a fixed schedule according to awake-asleep periods in this study; however, the actual awake and asleep periods could not be determined because they might differ from person to person [4].

In conclusion, although ambulatory BP monitoring is the best method for analysis of BP measurements, and also obesity may be a risk factor for hypertension as presented in a recent study, we suggest that above factors should be kept in mind when clinicians make similar studies.

Editor's Note: We asked the corresponding author to respond to the letter, but he declined.

References

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