
Letter to the Editor

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Dear Sir,

I am writing regarding the article "Prevalence of Systemic Hypertension among the rural residents of Kerala" by Prasanth TS and Vijayakumar K published in the July-September 2008 issue of Calicut Medical Journal" [CMJ 2008;6(3):e4]. Hailing myself from Kannur, I found this article very enjoyable and insightful. However, I have some qualms about its content.

Whilst the framework of the study appears generally sound, the use of a single blood pressure reading casts significant doubts on any conclusions that can be drawn from the data: Studies have shown that one reading is simply not enough to obtain a meaningful measurement.¹ BP, by its very nature, is spontaneously variable; even in healthy individuals there may be variation of up to 25mmHg between readings.² While factors may vary exactly how many readings are necessary, the necessity of multiple measurements is not debatable³. Furthermore, the appropriately named "white coat hypertension," referring to the artefactual phenomenon of elevated blood pressure in the presence of medical professionals has not been addressed. This is particularly worrying, since anxiety may be greater in rural inhabitants who are particularly unfamiliar with blood pressure measurement, which would lead to an even greater discrepancy between 'actual BP' and measured readings.

Finally, there is no mention of screening for factors which could lead to an artificially high BP reading, such as smoking or caffeine intake prior to the measurement.⁴ Hopefully, the authors have indeed accounted for this, but it would be reassuring if this was stated in the text.

These issues aside, I found the article a very interesting read

References:

1. Pickering, TG. Extending the Reach of Ambulatory Blood Pressure Monitoring. *Am J Hypertens.* 18, 1385–1387
2. Armitage, P and Rose, GA. The variability of measurements of casual blood pressure. *Clin Sci.* 30: 325–335.
3. Smirk F. H., Veale A. M. O. and Alstad K. S. Basal and supplemental blood pressures in relationship to life expectancy and hypertension symptomatology. *New Zealand Med J.* 58: 711–735.
4. Little P., Barnett J., Barnsley L., Marjoram J., Fitzgerald-Barron A. and Mant, D. Comparison of agreement between different measures of blood pressure in primary care and daytime ambulatory blood pressure. *Br Med J.* 325: 254.

The authors have not responded yet-Editor