

Is it really a **benign** condition?

Prof James Ker, Department of Internal Medicine, University of Pretoria

Whitecoat hypertension (or isolated clinic hypertension) is currently defined as elevated blood pressure (BP) when measured in the clinic, but normal BP when assessed away from the medical environment.

To minimise whitecoat hypertension,

guidelines recommend 24-hour ambulatory recording and/or home BP measurement. It was in 1988 that Pickering *et al* first used the term whitecoat hypertension to define untreated hypertension.¹

It is now generally agreed that whitecoat hypertension accounts for a significant portion of hypertensive patients. Despite this well recognised condition and the agreement of the definition and diagnosis, there is no agreement on the prognostic significance of whitecoat hypertension.

The question remains whether it is an innocent clinical condition or whether it is associated with an adverse or an increased

cardiovascular risk. This issue is still unsettled. The association between subclinical organ damage and whitecoat hypertension remains controversial.

The primary aim of this new meta-analysis was to provide a comprehensive and updated meta-analysis on the presence and extent of subclinical structural and functional cardiac damage as assessed by echocardiography in untreated patients with whitecoat hypertension.²

METHOD

PubMed, Embase, Ovid and Cochrane library databases were searched from December 1990 up to end January 2014 for published

articles on whitecoat hypertension diagnosed out-of-office which also evaluated the structure of the left ventricle.

RESULTS

There were 25 articles on 7382 untreated patients (2493 normotensive, 1705 whitecoat hypertensive and 3184 hypertensive people) and included both sexes from Europe, Asia and North America. The mean age range was 33 to 70 years and 50.9% were men.

Whitecoat hypertensive (WCH) people as compared to normotensive people: WCH had left ventricular mass that was greater than normotensive people, WCH had more signs on echocardiography of diastolic dysfunction and left atriums were larger in WCH people than in normotensive people.

WCH people as compared to hypertensive people: The hypertensive people had higher left ventricular mass, more diastolic dysfunction and larger left atriums than those with whitecoat hypertension.

REFERENCES

1. Pickering TG *et al*. How common is white-coat hypertension? *JAMA*, 1988.
2. Cuspidi C *et al*. Whitecoat hypertension as defined by ambulatory blood pressure monitoring and subclinical cardiac organ damage: a meta-analysis. *J Hypertension*, 2015. **SF**

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KEY MESSAGES

- 1 There are alterations to cardiac structure in patients with whitecoat Hypertension and that it is risk factor for the development of left ventricular hypertrophy.
- 2 There are changes in cardiac function as well in patients with whitecoat hypertension with early signs of left ventricular diastolic dysfunction.
- 3 The structure and function abnormalities are intermediate between sustained hypertension and normotensive patients.
- 4 This meta-analysis supports the view point that whitecoat hypertension should no longer be considered a fully benign condition.