



## EDITORIAL COMMENT

# Control of risk factors in hypertensive patients: A task to fulfill



## Controlo dos fatores de risco nos doentes hipertensos – uma tarefa a cumprir

Manuela Fiuza<sup>a,b</sup>

<sup>a</sup> Serviço de Cardiologia, CHULN, Lisboa, Portugal

<sup>b</sup> Faculdade de Medicina de Lisboa, Lisboa, Portugal

Available online 11 July 2019

Cardiovascular (CV) disease is the leading cause of death in the Portuguese population, accounting for 29.8% of deaths in 2016, mainly due to stroke (10.6%) and coronary heart disease (CHD) (10.5%).<sup>1,2</sup>

Hypertension is the single most important risk factor for CV disease. In Portugal, its prevalence is high (approximately 42%), as demonstrated in previous studies,<sup>3,4</sup> increases with age, and is usually associated with other risk factors and comorbidities.

The PRECISE study<sup>5</sup> (PREvalence of Cardiovascular Risk FactorS in patients with high blood pressure in Portuguese primary health care centers) was carried out at primary health care centers (PHCCs) with the primary objective of determining the proportion of patients with hypertension (defined as blood pressure [BP]  $\geq 140/90$  mmHg) who presented other cardiovascular risk factors and specific types of target organ damage such as left ventricular hypertrophy (LVH) detected by ECG and proteinuria. Among the secondary objectives was establishing the prevalence of cardiovascular risk factors, including smoking, hypercholesterolemia, obesity, type 2 diabetes, physical inactivity, family history of CHD, personal history of peripheral

arterial disease, stroke or CHD, LVH and microalbuminuria or proteinuria.

The study enrolled 2848 patients, with a mean age of  $65.8 \pm 11.0$  years (60.8% female), 63.9% of whom were in the 60-79 age group.

In a well-written paper with informative infographics, the authors report that 81.7% of these patients had three or more risk factors in addition to hypertension, and although almost all (98%) were on antihypertensive drugs, only 43% had controlled BP, and in those with three or more risk factors or comorbidities, only 36% had normal BP, with no significant differences between the sexes. This low rate of BP control worsened with age and with greater number of concomitant cardiovascular risk factors.

Since about two-thirds of the patients in this study were over 60 years of age, it would also have been valuable to analyze the prevalence and impact on rate of BP control of other comorbidities such as atrial fibrillation, sleep apnea and dementia, which are particularly common in the elderly and raise additional therapeutic issues that may also have contributed to the low rate of BP control.

The authors conclude that the high prevalence of cardiovascular risk factors, in particular hypercholesterolemia (82.1%) and sedentarism (71.4%), and the persistence of uncontrolled hypertension despite medical therapy, constitute a challenge that requires the organization of structured

DOI of original article:

<https://doi.org/10.1016/j.repc.2018.09.011>

E-mail address: [manuela.fiuza@gmail.com](mailto:manuela.fiuza@gmail.com)

<https://doi.org/10.1016/j.repc.2019.07.004>

0870-2551/© 2019 Sociedade Portuguesa de Cardiologia. Published by Elsevier España, S.L.U.

This is an open access article under CC BY-NC-ND license. (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

interdisciplinary teams that can prioritize and address the desired therapeutic goals.

The results of this study are in line with four other studies also performed in Portuguese PHCCs.<sup>3,4,6,7</sup> These portray the real world of the PHCC patient population, which has a high prevalence of cardiovascular risk factors, including dyslipidemia and metabolic syndrome, and is increasingly older (Portugal has the second oldest population in the European Union), with high rates of physical disability resulting in fewer years of healthy life.

It is imperative to reverse the low rate of control of cardiovascular risk factors, which ultimately results in high rates of cardiovascular morbidity and mortality.

To fulfill this unmet need, it is important to adopt more tailored approaches for the management of hypertension, based on assessment of patients' overall cardiovascular risk, and to determine the most appropriate pharmacological and non-pharmacological strategies, with particular emphasis on promoting more active lifestyles, as advocated by the latest World Health Organization action plan.<sup>8</sup> Continuous monitoring of the results obtained will also be needed in order to ensure that the plans adopted are effective.

I conclude with the same quote from Poulter et al.<sup>9</sup> used by the authors: "It therefore seems that the focus of debate should not be whether these modifications should be made, but how best to achieve them."

### Conflicts of interest

The author has no conflicts of interest to declare.

### References

1. INE: causas de morte em 2016. Lisboa: INE; 2018.
2. INE. The demographic changes in Portugal. Lisboa: INE; 2008.
3. Macedo ME, Lima MJ, Silva AO, et al. Prevalence, awareness, treatment and control of hypertension in Portugal: the PAP study. *J Hypertens*. 2005;23:1661–6.
4. Cortez-Dias N, Martins S, Belo A, et al. em nome dos investigadores do estudo VALSIM. Prevalência e padrões de tratamento da hipertensão arterial nos cuidados de saúde primários em Portugal. Resultados do estudo VALSIM. *Rev Port Cardiol*. 2009;28:499–523.
5. Marques da Silva P, Lima MJ, Neves PM, et al. Prevalência de fatores de risco cardiovascular e outras comorbilidades em doentes com hipertensão arterial assistidos nos Cuidados de Saúde Primários: estudo PRECISE. *Rev Port Cardiol*. 2019;38:427–37.
6. Polonia J, Martins L, Pinto F, et al. Prevalence, awareness, treatment and control of hypertension and salt intake in Portugal: changes over a decade. The PHYSA study. *J Hypertens*. 2014;32:1211–21.
7. Fiuza M, Cortez-Dias N, Martins S, et al. em nome dos investigadores do estudo VALSIM. Síndrome Metabólica em Portugal: Prevalência e Implicações no Risco Cardiovascular-Resultados do Estudo VALSIM. *Rev Port Cardiol*. 2008;27:1495–529.
8. WHO Global Plan on physical activity 2018–2030. <http://www.who.int/lets-be-active/en/> [accessed 26.06.18].
9. Poulter NR, Zographos D, Mattin R, et al. Concomitant risk factors in hypertensives: a survey of risk factors for cardiovascular disease amongst hypertensives in English general practices. *Blood Press*. 1996;5:209–15.