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LETTER TO THE EDITOR

Poor sleep quality in patients with resistant hypertension: is there an association?

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Dear Editor,

We read with great interest the article published in your journal by Hanus et al.[1], about sleep characteristics in hypertensive patients. Thus, we offer the following discussion for your consideration.

The survey results shows that about 50% (133/280) of patients received four or more antihypertensive drugs; therefore, these patients would be considered resistant hypertensive[2]. The study did not show blood pressure (BP) levels in the patients studied and it is not possible to know which of them were adequately controlling their hypertension. Furthermore, the study did not mentioned if the hypertensive individuals were randomized chosen[1].

Resistant hypertension is a serious condition associated with increased cardiovascular risk and poor prognosis[3]. It is defined as the failure to control blood pressure with three or more antihypertensive drugs, including a diuretic, or using four drugs to control BP[2-4].

In recent years, many studies have found a relationship between poor sleep quality and/or short sleep duration with high incidence and prevalence of hypertension. Pathophysiological mechanisms include the over activation of the autonomic nervous system and renin-angiotensin-aldosterone system, increased pro-inflammatory molecules and higher endothelial dysfunction[3-4].

In a cohort of patients it was possible to establish an association between poor sleep quality and resistant hypertension, with predominance in females[3]. Moreover, Friedman et al.[4] found an association between resistant hypertension and sleep disorders (short duration and low efficiency); the studies show a clear relationship between the quality of sleep and the risk of developing resistant hypertension. We think it is important to mention the quality of sleep in relation to the number of antihypertensive drugs, especially in those patients who taken four or more drugs, noted as an important group in the study of Hanus et al., and to consider wheter patients who did not use medication to sleep, probably had better quality of sleep compared to patients who used medication[1]. These aforementioned differences could be explained.

Finally, considering that the treatment of resistant hypertension is also based on lifestyle modification[2], it is important to investigate sleep disorders in these patients, especially in primary care. This approach has proven to have a positive effect on patients and it improves adherence to medical treatment, making the prognosis most favorable. It has even been suggested that "sleep" be considered as a vital sign in a medical consultation[5].

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Dear readers,

We appreciate the interest of these readers, clarifying that all criticisms and corrections were taken into account, which gave rise to some comments that we expose below. First, readers questioned that the pressure levels of survey participants are not portrayed in the research, however, these data were collected as part of the collection of research data, however were not included in the results of the study presented.

In order to clarify how the selection of participants, the authors chose to select sample randomly, raffling them through their records at the facility which were reference. There are still many discussions relevant to the use of medications to sleep, especially in individuals with hypertension, since many of them have associated morbidities, making using a number considered medications, which end up interacting with each other, that many stools its effects are not the expected result.

These questions provoked important reflections on this issue, encouraging researchers in this line of research to deepen their studies with respect to hypertension.

Regards,

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