

Blood Pressure Control and Therapeutic Adherence – The Challenges of Hypertension

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Editorial referring to the article: *Clinical Characteristics and Therapeutic Adherence of Women in a Referral Outpatient Clinic for Severe Hypertension*

Blood pressure control is the greatest challenge in the treatment of hypertension.^{1,2} The control rate varies from 10% to 32% among continents, and it is related to the development level of each country, with averages ranging from 27% in low- and middle-income countries to 51% in high-income countries.¹ In Brazil, the rates of awareness (22% – 77%), treatment (11% – 78%), and blood pressure control (10% – 36%) also vary depending on the population studied.³ Clinical inertia, inappropriate lifestyle, and poor therapeutic adherence are the main reasons for difficulty in reaching the therapeutic target.

Several factors affect adherence to treatment, including sociodemographic factors, as well as factors related to patients, drug treatment, and healthcare providers.^{2,4} The main sociodemographic factors are age (younger and very elderly patients), poverty, ethnicity (minorities), and lack of social support. Few studies have assessed the difference in adherence between men and women, and they present controversial results.⁵

Regarding patient-related factors, denial of a silent disease such as hypertension and difficulty in understanding its severity and effectiveness of treatment for an asymptomatic condition are decisive to adherence. The emergence of symptoms as side effects of anti-hypertensive drugs may reduce adherence even more.^{2,4,5}

Considering drug treatment, we know that the chronic use of medication leads to a progressive decrease in adherence, with reports showing that less than half of patients continue using medication regularly after a year of treatment.⁴ Furthermore, the high number of drugs and complex therapeutic schemes make comprehension

difficult and increase costs. In this sense, patients with resistant hypertension – those using three or more anti-hypertensive drugs, in addition to specific medication for comorbidities such as dyslipidemia and diabetes – deserve special attention, and they require constant adherence monitoring to avoid pseudo-resistance.⁶ In a recent systematic review assessing 24 studies on patients with resistant hypertension, the prevalence of non-adherence was 31.2% (95% confidence interval = 20.2 – 44.7, I = 99.50), ranging from 3.3% to 86.1%.⁷ This variation was directly related to the method used to evaluate adherence. Subjective self-report questionnaires show higher adherence than more objective methods.⁷ The main variables associated with poor adherence among patients with resistant hypertension are female sex, physical inactivity, depressive symptoms, and history of coronary disease.⁸

Barletta et al. assessed 181 women with hypertension, 60.8% of whom were diagnosed with apparent resistant hypertension. The study found that 44.2% of patients had appropriate blood pressure control based on office measurement. Adherence was evaluated using the 8-item Morisky Medication Adherence Scale (MMAS-8), which showed that 13.8% had low adherence, 42.0%, moderate adherence, and 44.2%, high adherence. The variable independently related to low adherence was depression.⁹ A systematic review and meta-analysis including 28 studies that also evaluated adherence using MMAS-8 found a 45% prevalence of non-adherence, with a risk 1.3 times higher among men.¹⁰ This high rate of blood pressure control associated with moderate/high adherence (higher than 80%) is probably due to the follow-up of patients in a specialized hypertension care clinic. It is also the result of a subjective evaluation method

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of adherence and especially the female population of the study, usually more focused on self-care.

While several subjective and objective evaluation methods of therapeutic adherence exist, none of them are considered the gold standard. Therefore, this assessment is a complex task that is difficult to quantify.² Furthermore, it is difficult to establish a cut-off point for good adherence that is able to guarantee the benefits of anti-hypertensive treatment.⁴ Among direct methods, there are blood or urine drug level measurements and digital medicines (ingestible sensors incorporated in the pill during the manufacturing process that generate a coded message after pill ingestion). Both are high-cost options, and they may be affected by biological factors.^{2,4} Indirect methods include self-reporting scales, doctors' impressions, evaluation of clinical response, and manual counting of pills. All methods have low sensitivity and are susceptible to errors. There are also electronic devices to monitor the use of drugs. Although they are very accurate, this is also a high-cost alternative.^{2,4}

Thus, it is essential to develop strategies capable of promoting better therapeutic adherence, with the goal of an effective reduction in cardiovascular morbimortality through blood pressure control. These strategies should focus on the patient, the drug treatment, and healthcare providers.²

Healthcare education to develop awareness, self-care promotion, family and social support, and home blood pressure monitoring are some of the actions that may be taken to increase adherence. Recent studies have been using telemonitoring, although this method is still expensive and difficult to access.^{2,4} Other actions include the prescription of less complex therapeutic schemes, with long-acting drugs (reducing the number of daily pills) with fewer side effects, the combination of drugs in a single pill, and increased access to drugs through public policies for the distribution of free or low-cost medication. Furthermore, it is necessary to encourage the creation of multidisciplinary teams that are capable of guiding, prescribing, monitoring, and proposing effective changes in lifestyle and self-care.

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