

EDITORIAL

Factors Associated With Quality of Life in Patients with Systemic Arterial Hypertension

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In 1966, Avedis Donabedian published a seminal article¹ showing the importance of measuring health care quality. Donabedian also defined that it should be done in the dimensions of structure, process or results.² The author showed that the “results” dimension is not necessarily related to the other two. While the measurement of some results, such as mortality, is easy to be carried out, other results are difficult to be measured, such as quality of life and patients’ satisfaction.

In the early 80’s, I became interested in the subject of health care quality. My thesis to obtain the master’s degree in Internal Medicine from the Federal University of Rio de Janeiro Medical School was entitled “Hypertension: health care quality at the HU-UFRJ”.

Therefore, it was a pleasant surprise when I was invited to write an editorial of an article about quality of life of patients with systemic arterial hypertension on this issue of International Journal of Cardiovascular Sciences.

Based on the hypothesis that “physical conditioning is the main component of quality of life of hypertensive subjects”, in a cross-sectional study, the authors evaluated the effects of isometric handgrip training on blood pressure of hypertensive individuals to assess the factors associated with the quality of life of these patients.

For this purpose, the authors used the SF-36 questionnaire, developed by the Rand Corporation,⁴ which is a generic measure of quality life that has been translated and validated in Portuguese.⁵ The instrument allows the determination of descriptive information and comparisons of populations, and assessment of health perception and quality of life of patients over time.

Keywords

Blood Pressure, Cardiovascular Diseases/prevention and control; Antihypertensive Agents/therapeutic use; Hypertension/ therapy; Exercise; Quality of Life.

This is then the first limitation of the study to be discussed. The authors did not present the calculation of the sample size required to describe the characteristics of the study population with respect to the eight domains of the questionnaire. In addition, according to the abstract of the study, 45 hypertensive patients participated in the study, but Table 1 in the article: “Factors Associated with Quality of Life in Patients with Systemic Arterial Hypertension”³ describes 80 participants (n = 80).

Participants that met the eligibility criteria, which were probably developed for the intervention study, were hypertensive, and overweight or obese (probably mostly obese class I, since the mean BMI was 30.7 kg/m²). Obesity is associated with hypertension, and to analyze the effect of each condition using the quality of life questionnaire, the authors should have performed a multiple-variable analysis, which, in turn, would be impossible considering the relatively small sample size. The lack of a multiple-variable analysis also hinders the assessment of the effect of medication use on patients’ quality of life,⁶ especially knowing that the more severe the disease, the more drugs (and at higher doses) a patient receives.⁷

Analysis of the statistically significant variables showed known and expected data, such as: the positive relationships between functional capacity and higher education level, and functional capacity and muscle strength, and a negative relationship between functional capacity and higher BMI. However, how are these data related to hypertension?

The only result related with arterial hypertension does not make sense – the positive relationship between physical aspects and systolic blood pressure – which may have resulted from contamination by any other variable. This result deserves criticism, as it may lead the readers to understand that an elevated systolic blood pressure is beneficial, while it has already been shown that an

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intensive blood pressure control improves patients' survival and quality of life. In fact, with the recent publications by the Sprint Research Group⁸ and the Sprint Mind Investigators,⁹ the control of blood pressure to lower levels became a target in all guidelines.

Despite these problems in this study, I congratulate the authors for the decision to walk this important and hard path of study. A good quality of life guarantees treatment compliance of chronic diseases and must be investigated in hypertension.

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