International Journal of Cardiovascular Sciences. 2019;32(6):605-606

EDITORIAL

The Burden of Heart Failure in Brazil: Are we Providing Better Care or Just more Expensive Care?

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Editorial related to the article: Heart Failure: An Overview of Morbidity and Mortality in Rio Grande do Sul

Heart failure is one of the leading causes of cardiovascular morbidity and mortality and affects 0.5 to 2% of the population,[1] with significant costs for the healthcare system.[2] In 2012, heart failure accounted for over 270,000 hospitalizations in Brazil, corresponding to a cost of more than 170 million US dollars.[3] The knowledge of the profile of heart failure patients and treatment outcomes is crucial for the development of health policies and interventions aimed at reducing costs, morbidity and mortality.

In this issue, Nicolao et al.,[4] published a retrospective analysis of data from the Brazilian public health system (DataSUS), evaluating morbidity, mortality, and costs related to heart failure in adult patients, considering three geographic dimensions: the state of Rio Grande do Sul, its capital Porto Alegre city, and Brazil.[4] A ten-year period was selected, January 2007 to November 2017. Heart failure accounted for over one-quarter (25.38%) of the hospitalizations in the public health system in Brazil in 2007, with a reduction to 19.4% in 2017, with similar trends in Rio Grande do Sul state (18.4%) and Porto Alegre city (13%). Most patients were older than 40 years, with an increasing incidence of heart failure until the age of 79. There was an increase in the sex ratio, towards male, for patients admitted due to heart failure, mainly in Porto Alegre. Hospital length of stay increased in about one day, from 6.4 to 7.4 days in Brazil and from 6.7 to 7.5 in Rio Grande do Sul. However, in Porto Alegre, hospital length of stay differed from the other series, reaching 10.1 days in 2007, and with a slight increase to 10.6 days in 2017. The costs of heart failure hospitalization increased in all series, and it was more costly in Porto Alegre than in Brazil and Rio Grande do Sul state. Finally, mortality rate reduced over time from 2.67% to 2.17% in Brazil and from 2.86% to 2.16% in Rio Grande do Sul. Porto Alegre showed a greater reduction, from 2.02% to 0.79%. Taken together, these findings might reflect on more heart failure patients referrals to tertiary centers in Porto Alegre.

This study has some limitations. First, since it analyzes data obtained from a national database, it relies on the correct completion of the authorization for hospital admission form. Additionally, it does not contemplate patients diagnosed with heart failure during hospitalization. This method does not allow us to understand the reasons of the changes in hospitalizations, length of stay and mortality rates, or whether these reductions were associated with changes in etiology, rate of optimal medical treatment and public policies. An analysis of individual data would be needed to answer these questions.

The BREATHE study revealed that heart failure etiology differs among Brazilian regions.[5] In Rio Grande do Sul state, ischemic cardiomyopathy was the most common etiology, with comparable rates of Brazil, although hypertensive etiology was about 63% more prevalent than in the rest of the country. Bocchi et al.,[5] also highlighted these discrepancies, since hypertension as the cause of HF ranged from 7% to 25% in some series.[6] In addition, Chagas disease affects 42% of HF patients in

Keywords

Heart Failure/physiopathology; Heart Failure/mortality; Epidemiology; Hospitalization; Unified Health System; Health Systems Plans; Mortality & Morbidity.

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DOI: https://doi.org/10.36660/ijcs.20190160

the Central-West region, but only 2% in the South.[5] In a continental country like Brazil, there are also important discrepancies in terms of access to public health system and educational levels between states. These findings help understand differences in hospitalization and mortality rates between Rio Grande do Sul state and Brazil. Complex cases are usually referred to the largest hospitals in Rio Grande do Sul, located in Porto Alegre, which may explain the longest length of stay and highest costs in this city. The city has three public hospitals with heart failure and transplant teams, which may promote better care and lower mortality rate. The authors also showed that the increase in costs over time occurred in parallel to a decrease in mortality, and that might reflect improvement in quality of care. It is not known whether costs increased due to greater investment in health system or to economic inflation.

Only about two-thirds of patients in Brazil receive guideline-based treatment on hospital discharge.[3] Public policies are needed to increase the rate of guideline-based treatment in heart failure patients not only in Brazil but also in Latin America. Our continent has the highest rates of mortality (8.2 events per 100 patients-year) in comparison with others, such as the Western Europe, with 4.8 events per 100-patients year.[7] The recent incorporation of sacubitril/valsartan to the list of medications available in the Brazilian public health system may have a positive impact on the outcome rates in the next decade, but still, there is a lot of work to be done. Control of Chagas disease vector, treatment of hypertension according to recent guidelines, and lower obesity/physical inactivity rates are important goals to be achieved to reduce the burden of heart failure in our country. In addition, a better care during the vulnerable phase after hospital discharge could help avoid readmissions.

In conclusion, the authors showed that trends in heart failure have changed in the last decade. Although the cost of heart failure has increased, hospitalization and mortality rates decreased over time, especially in Porto Alegre city. By knowing these regional differences, a more organized network could be built to offer more specialized care to the sickest patient. There is an urgent need for more studies on the epidemiology of cardiovascular disease and heart failure in Brazil and its regions, to optimize the provision of funds and development of policies to improve the care provided to these patients and outcomes achieved. So far, the lower mortality rates observed point towards a better, not just more expensive, care.

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