

EDITORIAL

The Medical Burden of Heart Failure and Cancer in Brazil. Fact or Fiction?

Ricardo Mourilhe-Rocha,^{1,2}  Pedro Fernandes Ribeiro^{1,2} 

Hospital Universitário Pedro Ernesto,¹ Rio de Janeiro, RJ - Brazil

Hospital Pró-Cardíaco,² Rio de Janeiro, RJ - Brazil

Editorial referring to the article: The Medical Burden of Heart Failure: A Comparative Delineation with Cancer in Brazil

Cardiovascular disease and cancer are the leading causes of mortality in most high-income countries around the globe.¹ It is estimated by the Brazilian Ministry of Health that circulatory diseases and cancer are the leading causes of mortality in patients over 50 years of age,² which makes them the main public health concerns in absolute numbers. This is not only true in treatment-related costs, but also in terms of social harm imposed on an economically productive population and the health system this population subsidizes.

Recently, Almeida et al. have published a comparative analysis on mortality rates for patients with heart failure.³ The paper performed a retrospective comparative analysis with data retrieved from DataSUS, an administrative database from Brazil's public health system and was able to reach the conclusion that heart failure has a prognosis that is worse than many types of cancer. As the author himself says, the paper is limited by the administrative characteristics of the database itself, and, as already mentioned in the BREATHE registry, this kind of data has inherent limitations.⁴

Although both populations face dismal prognostic rates, Santos et al. have shown that the relative mortality rate for heart failure (per 100,000 inhabitants) has dropped during the last 40 years.⁵ These findings, according to the authors, can be attributed to increased access to and optimization of health care. On the other hand, the prognosis for cancer patients has remained unchanged over the last 20 years.⁵ It is possible that an organized public health program, combined with a strong cardiology society, could provide

uniformization of guideline-directed therapies, resulting in more efficient implementation and improved mortality rates.

Of course, the desire for lower mortality rates in prevalent diseases such as heart failure and cancer is uncontroversial. However, the immediate concern is the high prevalence of both diseases, which are responsible for frequent hospitalizations. More than 1 million hospitalizations occurred due to acute heart failure in 2012.⁴ The economic burden is also quite impressive: 2.1% of all health care expenditures in 2017 were for the treatment of patients with acute heart failure.⁶ In parallel, over 700,000 hospitalizations were attributable to cancer of any kind in 2018, at an estimated cost of over BRL 1.8 billion.^{4,7}

It should also be recognized that newer and better treatment options are a huge factor in the lower mortality rate of heart failure patients. The recent approval of sacubitril/valsartan and dapagliflozin for heart failure patients in the Brazilian public health system will entail a considerable increase in treatment costs. The annual cost increase per patient, according to Brazil's technical committee for incorporating technology, will be BRL 806,65 for dapagliflozin and BRL 2460,10 for sacubitril/valsartan.^{8,9} While heart failure patients face challenges to medication access, cancer patients face abysmal differences in treatment options depending on region, social class, and access to private health infrastructure. Inequality certainly plays a key role in the unchanged mortality curve.⁷

The answer for both groups could be obtained in part by effective universal preventive interventions. This is especially true since both cancer and heart failure patients share common risk factors for the development and worsening of their diseases. For example, Corrêa Ferreira da Silva et al. reported that

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Mailing Address: Ricardo Mourilhe-Rocha

Hospital Universitário Pedro Ernesto, Cardiology, Av. 28 de setembro, 77, 2º andar, Rio de Janeiro, RJ. Postal code: 20551-030 - Brazil

E-mail: ricardomourilhe@gmail.com

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body weight-associated cancers were responsible for 1.76% of all cancer-related costs in Brazil in 2018.¹⁰ Therefore, it is plausible that public health policies focusing on minimizing tobacco exposure, promoting body weight awareness, and increasing healthier food consumption patterns could result in remarkable outcomes in terms of reduced prevalence and improved quality of life in both patient groups, not to mention the resulting economic savings.

Cancer and heart failure patients have not only common prognostic rates, risk factors, and clinical attributes, but also an intertwined correlation between their diseases. This fact is of such relevance that a new cardiologic subspecialty has arisen: cardioncology. Cancer patients

have a substantial risk of developing cardiovascular complications, such as cardiotoxicity, accelerated coronary artery disease, and pericardial pathologies. In contrast, heart failure is an obstacle to cancer treatment regimens.

The situation for cancer and heart failure patients seems to have improved over the years in Brazil. Mortality rates have dropped, treatment options have expanded, and public policy favors preventive measures. Nevertheless, minimizing the social and regional discrepancies in access to diagnostic tools and time to treatment is an ongoing challenge. The answer for the growing economic burden of cancer and heart failure seems to be universal public effort toward prevention of their common risk factors.

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