ISSN 1028-9933
Universidad de Ciencias Médicas de Guantánamo

June 2025 Volume 104 e5015
DOI: https://doi.org/10.5281/zenodo.15282219

LETTER TO EDITOR

An emerging challenge: regarding the article Clinical aspects of heart failure in young adults

Un desafío emergente: a propósito del artículo Aspectos clínicos de la insuficiencia cardiaca en adultos jóvenes

Um desafio emergente: em relação ao artigo Aspectos clínicos da insuficiência cardíaca em adultos jovens

Lodixi Cobas Planchez

Hospital Clínico Quirúrgico "Hermanos Ameijeiras". La Habana, Cuba.

***Corresponding author:** lodixicp@gmail.com

Received: 23-04-2025 **Accepted:** 03-06-2025 **Published:** 06-06-2025

How to cite this article:
Cobas Planchez L. An emerging challenge: regarding the article Clinical aspects of heart failure in young adults. Rev Inf Cient [Internet]. 2025 [cited Access date]; 104:e5015. Available at: http://www.revinfcientifica.sld.cu/index.php/ric/article/view/5015

Dear Editor:

Heart failure (HF) has historically been considered a disease of the elderly, associated with aging and the accumulation of chronic comorbidities. However, in recent years, a growing body of evidence suggests that this syndrome is not unique to the elderly population. More and more young adults, even in the fourth or fifth decade of life, are being diagnosed with HF; a phenomenon that challenges traditional paradigms and calls for a re-evaluation of prevention, diagnosis and treatment strategies.

The study conducted by Vidal Revé S, et al.[1] at the General Teaching Hospital “Dr. Agostinho Neto” of Guantánamo, sheds light on this problem by identifying a unique epidemiological profile in young patients, characterized by a male predominance, high prevalence of modifiable risk factors and an alarming mortality of 32.39% during hospitalization. These findings, although limited by their retrospective design and local focus, resonate with global trends and raise critical questions about the underlying causes and the necessary responses from health systems.

The study, which included 65 patients between 18 and 55 years of age, revealed that 72.3% were men, a finding consistent with international research, which attributes this disparity to greater exposure to cardiovascular risk factors in young men, such as smoking, excessive alcohol consumption and premature ischemic heart disease.

Hernández Magdariaga A, et al.[2] reported in their study, carried out in Santiago de Cuba, data that are related to those presented by Vidal Revé, et al.[1] where arterial hypertension emerged as the most prevalent risk factor (63.07%), followed by smoking (44.61%) and obesity (36.92%). These figures not only reflect a high burden of preventable diseases, but also underscore the urgency of interventions aimed at modifying lifestyles from an early age. Hypertension, in particular, is associated with an increased risk of developing HF in young people.[3]

One of the most striking findings of the study in question is the predominance of ischemic etiology (53.81%), a result that contrasts with other studies,[4] where dilated cardiomyopathy and genetic causes tend to be more frequent in young adults. This discrepancy could be explained by differences in risk profiles: in contexts with a high prevalence of uncontrolled hypertension and diabetes, such as that observed in Guantánamo, microvascular damage and accelerated atherosclerosis could precipitate ischemic events, even in the absence of severe coronary obstructions.

In populations with limited access to advanced diagnostics (cardiac magnetic resonance imaging or genetic testing), ischemic HF may be overdiagnosed, whereas causes such as myocarditis or non-ischemic cardiomyopathies remain underestimated. This poses a clinical dilemma are the causes of HF in young people, especially in resource-limited settings, being correctly identified?

The in-hospital mortality of 32.39% reported is undoubtedly the most worrisome finding. This percentage far exceeds figures from similar studies in high-income countries, where mortality ranges from 1.3% to 10%[5]. Although the study does not explore the causes of this difference, it is plausible that factors such as late diagnosis, lack of access to first-line treatment, advanced therapies (ventricular assist devices or cardiac transplantation) and the high prevalence of uncontrolled comorbidities play a key role.

Young adults with HF in low- and middle-income countries have a risk of in-hospital death twice as high as those in high-income countries, even after adjusting for clinical severity. This not only reflects inequities in access to care but also the need to adapt clinical guidelines to specific contexts, with the prioritization of cost-effective interventions such as the use of loop diuretics and beta-blockers that are underutilized in some regions.[3]

But beyond the numbers, HF in young adults represents a multidimensional crisis. Unlike the elderly, these patients are often in the midst of their productive years, with work and family responsibilities. Disability resulting from HF not only affects their quality of life but also has profound economic and social repercussions. These data, although not explored in the study, suggest that the management of HF should go beyond the medical, with the integration of psychosocial support and cardiac rehabilitation.[6]

In this scenario, what is the way forward? a) First, it is imperative to strengthen primary prevention. Community programs to control hypertension, promote healthy diets and reduce smoking can have a significant impact, especially if they target young men, who show lower adherence to prevention consultations. b) Second, early diagnosis should be a priority. The use of biomarkers such as B-type natriuretic peptide (BNP)[7] and portable echocardiography could facilitate the identification of cases at early stages, even in hard-to-reach areas. c) Third, prospective, multicenter research is needed that explores not only the causes of high mortality, but also the role of social determinants such as poverty, access to drugs, and health education.

The study by Vidal Revé, et al.[1] despite its limitations, is a stark reminder that HF in young people is a real and growing problem. To ignore it would be a costly mistake. There is a responsibility to advocate for policies that prioritize cardiovascular health from an early age, ensuring that no patient, regardless of age or geography, is excluded from receiving timely, quality care. Heart failure in young adults is not just a clinical diagnosis; it is a call to action.

BIBLIOGRAPHIC REFERENCES

1. Vidal Revé S, Infante Rodríguez YC, Vaillant Hernández Y, Luque Ramírez S, Vidal Díaz K. Aspectos clínicos de la insuficiencia cardiaca en adultos jóvenes. Rev Inf Cient [Internet]. Mar 2025 [cited 23 Abr 2025];104:e4878. Available at: https://revinfcientifica.sld.cu/index.php/ric/article/view/4878
2. Hernández Magdariaga A, Rojas Hierrezuelo N, Velásquez Ferreira LM, Ávila Velásquez M, Videaux Caballero SR. Factores de riesgo cardiometabólicos en adolescentes. RevCubana Cardiol Cir Cardiovasc [Internet]. 2023 [cited 23 Abr 2025];29(1):e1354. Available at: https://revcardiologia.sld.cu/index.php/revcardiologia/article/view/1354
3. Gallo G, Savoia C. Hypertension and Heart Failure: From Pathophysiology to Treatment. Int J Mol Sci [Internet]. 2024 [cited 23 Abr 2025];25(12):6661. DOI: https://doi.org/10.3390/ijms25126661
4. Pavía-López AA, Magaña-Serrano JA, Cigarroa-López JA, Chávez-Mendoza A, Mayorga-Butrón JL, Araiza-Garaygordobil D, et al. Clinical practice guidelines for diagnostic and treatment of the chronic heart failure. Arch Cardiol Mex [Internet]. 2024 [cited 23 Abr 2025];94(Supl 1):1-74. DOI: https://doi.org/10.24875/acm.m24000095
5. Zavala-Hoppe AN, Peralta-Ortega SY, Narváez-Calderón JM, Patiño-Zambrano FA. Mortalidad por enfermedades cardiovasculares y sus factores de riesgo a nivel global. MQRInvestigar [Internet]. 2024 [cited 23 Abr 2025];8(1):1565-89. DOI: https://doi.org/10.56048/MQR20225.8.1.2024.1565-1589
6. Zuloaga Puglisi M, Renna N. Manejo del paciente frágil con insuficiencia cardíaca avanzada y fracción de eyección reducida. Insuf Card [Internet]. 2022 [cited 23 Abr 2025];17(3):62-74. Available at: http://www.insuficienciacardiaca.org/pdf/v17n3_22/v17n3a02.pdf
7. Gruson D. Valor del análisis de péptido natriurético en el diagnóstico y prevención de la insuficiencia cardíaca en poblaciones de alto riesgo. Adv Lab Med [Internet]. 2024[cited 23 Abr 2025];5(3):233-235. DOI: https://doi.org/10.1515/almed-2024-0122

Conflict of interest:
The author declares that there are no conflicts of interest.

Financing:
No funding was received for the development of this article.