## LETTER TO THE EDITOR

# Prevalence of aortic stenosis in a large population of patients with heart failure: any insights into comorbid cardiac amyloidosis?

To the editor We have read with great interest the results of a nationwide cohort study by Rywik et al<sup>1</sup> including 2601 patients with heart failure (HF) across the spectrum of left ventricular ejection fraction (LVEF). Interestingly, the relative frequency of aortic stenosis (AS) was significantly greater in patients with HF with preserved LVEF (HFpEF) than in those with mildly reduced and reduced LVEF (HFmrEF and HFrEF, respectively) (P < 0.001).<sup>1</sup>

It has been formerly demonstrated that up to 16% of patients with AS have concomitant transthyretin cardiac amyloidosis (ATTR-CA), while the latter is associated with a severe phenotype of AS.<sup>2</sup> Of note, patients with both AS and ATTR-CA seem to have a significantly worse prognosis, with a 1-year mortality of 24.5%, if left untreated.<sup>3</sup>

According to the analysis presented by Rywik et al,<sup>1</sup> the relative frequency of comorbidities such as renal failure and anemia was significantly or marginally nonsignificantly higher in patients with HFpEF than in those with HFrEF and HFmrEF. Based on the fact that anemia and renal failure are common features of amyloidosis,<sup>4</sup> a reasonable question that might arise is whether the relative frequency of cardiac amyloidosis was also greater in patients with HFpEF, compared with individuals with HFrEF and HFmrEF, in the cohort analyzed by Rywik et al.<sup>1</sup>

We think that if relevant information is available, it would be of great interest and scientific value, as it would provide further insights into a relatively common comorbidity, especially in light of recent new treatment options, such as tafamidis.<sup>5</sup> Identification of different phenotypes of amyloidosis in each HF subtype will guide both the diagnostic approach and appropriate, targeted treatment strategies.

### **ARTICLE INFORMATION**

AUTHOR NAMES AND AFFILIATIONS Athina Dimosiari, Theodoros Michailidis, Dimitrios Patoulias (AD: Department of Emergency Medicine, General Hospital "Ippokrateio," Thessaloniki, Greece; TM: Second Department of Internal Medicine, Aristotle University of Thessaloniki, General Hospital "Ippokrateio," Thessaloniki, Greece; DP: Second Propedeutic Department of Internal Medicine, Aristotle University of Thessaloniki, General Hospital "Ippokrateio," Thessaloniki, Greece)

**CORRESPONDENCE TO** Dimitrios Patoulias, MD, MSc, PhD, Second Propedeutic Department of Internal Medicine, Aristotle University of Thessaloniki, General Hospital "Ippokrateio," Konstantinoupoleos 49, 54-642 Thessaloniki, Greece, phone: +30 6946900777, email: dipatoulias@gmail.com

### $\label{eq:conflict} \textbf{CONFLICT OF INTEREST} \quad \text{None declared}.$

**OPEN ACCESS** This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License (CC BY-NC-SA 4.0), allowing third parties to copy and redistribute the material in any medium or format and to remix, transform, and build upon the material, provided the original work is properly cited, distributed under the same license, and used for noncommercial purposes only. For commercial use, please contact the journal office at pamw@mp.pl.

HOW TO CITE Dimosiari A, Michailidis T, Patoulias D. Prevalence of aortic stenosis in a large population of patients with heart failure: any insights into comorbid cardiac amyloidosis? Pol Arch Intern Med. 2022; 132: 16262. doi:10.20452/pamw.16262

#### REFERENCES

1 Rywik TM, Doryńska A, Wiśniewska A, et al. Epidemiology and clinical characteristics of hospitalized patients with heart failure with reduced, mildly reduced, and preserved ejection fraction. Pol Arch Intern Med. 2022; 132: 16227. ☑

2 Castaño A, Narotsky DL, Hamid N, et al. Unveiling transthyretin cardiac amyloidosis and its predictors among elderly patients with severe aortic stenosis undergoing transcatheter aortic valve replacement. Eur Heart J. 2017; 38: 2879-2887. ☑

3 Nitsche C, Scully PR, Patel KP, et al. Prevalence and outcomes of concomitant aortic stenosis and cardiac amyloidosis. J Am Coll Cardiol. 2021; 77: 128-139. ☑

4 Wechalekar AD, Gillmore JD, Hawkins PN. Systemic amyloidosis. Lancet. 2016; 387: 2641-2654. ☑

5 Maurer MS, Schwartz JH, Gundapaneni B, et al. Tafamidis treatment for patients with transthyretin amyloid cardiomyopathy. N Engl J Med. 2018; 379: 1007-1016. ☑