International Journal of Cardiology 288 (2019) 116

Contents lists available at ScienceDirect

International Journal of Cardiology

journal homepage: www.elsevier.com/locate/ijcard

Letter to the Editor

Natriuretic peptide levels in constrictive pericarditis

Oscar M.P. Jolobe

Manchester Medical Society, Simon Building, Brunswick Street, Manchester M13 9PL, United Kingdom

ARTICLE INFO

Article history:
Received 22 December 2018
Received in revised form 31 January 2019
Accepted 7 February 2019

Keywords:
Natriuretic
Peptide
Blood
Levels
Constrictive
Pericarditis

Over and above achievements as biomarkers of heart failure [1], natriuretic peptides also help to differentiate constrictive pericarditis(CP) from its close mimic, congestive heart failure(CHF) attributable to restrictive cardiomyopathy(RCM), apparently irrespective of the New York Heart Association(NYHA) functional class [2,3].

In a comparison between 29 CP patients with mean NYHA functional class 2.65 vs 20 RCM subjects with mean NYHA functional class 2.7, NT-pro BNP levels were significantly($p = 0.0001$) lower in CP than in RCM [2]. In a study which compared 6 CP patients vs 5 RCM patients, all eleven patients being in NYHA functional class III or IV, mean plasma Brain Natriuretic Peptide(BNP) levels were significantly ($p < 0.001$) lower in CP subjects than in RCM subjects [3]. Myocardial stretch is the predominant mechanism for BNP release. Accordingly, CP-related impairment of BNP release might be attributable to the fact that "myocardial stretch is prevented by the constraining pericardium" [3]. Given the fact that, in general, natriuretic peptide levels are either normal or only modestly elevated in CP [2,3], there should be a high index of suspicion for CP when such levels are encountered in a patient with a provisional diagnosis of CHF, especially when other stigmata of CP coexist, such as markedly elevated jugular venous pressure [4], which remains persistently elevated despite diuretic therapy [5].

Over and above the few available studies on CP-related natriuretic peptide secretion, more studies are needed to improve the diagnostic utility of BNP in CP.

I have no funding and no conflict of interest.

References

[1] M. Volpe, A. Battistoni, S. Rubattu, Natriuretic peptides in heart failure: current achievements and future perspectives, Int. J. Cardiol. 281 (2019) 186–189.
[2] N. Parakh, S. Mehrotra, S. Seth, S. Ramakrishnan, S. Kothari, B. Bhargava, V.K. Bahl, NT pro B type natriuretic peptide levels in constrictive pericarditis and restrictive cardiomyopathy, Indian Heart J. 67 (2015) 40–44.
[3] F.S. Leya, D. Arab, D. Joyal, K.M. Shioura, B.E. Lewis, L.H. Steen, et al., The efficacy of brain natriuretic peptide levels in differentiating constrictive pericarditis from restrictive cardiomyopathy, JACC 45 (2005) 1900–1902.
[4] T.M.G. Gimlette, Constrictive pericarditis, Br. Heart J. 21 (1959) 9–16.
[5] C.R. Conti, G.C. Friesinger, Chronic constrictive pericarditis clinical and laboratory findings in 11 cases, Johns Hopkins Med. J. 120 (1967) 262–274.

E-mail address: oscarjolobe@yahoo.co.uk.

https://doi.org/10.1016/j.ijcard.2019.02.015