Tissue Doppler Imaging Identifies Myocardial Dysfunction in Adults with Marfan Syndrome

Rybczynski M, Koschyk DH, Aydin MA, Robinson PN, Brinken T, et al.: *Clin Cardiol* 2007;30:19-24

To the Editor:

I read with great interest the study by Rybczynski et al.,¹ which identified reduced systolic and early diastolic tissue Doppler velocities in adults with Marfan syndrome. The methods and interpretation of the results, however, raise several concerns.

It is well known that hypercholesterolemia, diabetes, chronic obstructive pulmonary disease, Graves' disease, and paroxysmal atrial fibrillation etc. could affect the left ventricular myocardial segments and global function to some extent.² In the study by Rybczynski et al.,¹ however, the above-mentioned relevant history were not well described. Were there any relations of reduced systolic and early diastolic tissue Doppler velocities in adults with Marfan syndrome to the above-mentioned relevant history? In addition, it is well known that aortic regurgitation could affect left ventricular myocardial segments and global function to some extent. In the study by Rybczynski et al.,¹ however, the degree of aortic regurgitation was not well described. Were there any relations of reduced systolic and early diastolic tissue Doppler velocities in adults with Marfan syndrome to the degree of aortic regurgitation?

In the study by Rybczynski et al.,¹ the authors thought that mutations in Marfan syndrome affect proteins of the

myocardial cytoskeleton and extracellular matrix, whereas mutations in familial hypertrophic cardiomyopathy involve different sarcomeric proteins, and that reduced systolic and early diastolic tissue Doppler velocities in adults with Marfan syndrome could be caused by a primary myocardial disease. However, the hypothesis of a primary myocardial disease is not convincing enough because reduced systolic and early diastolic tissue Doppler velocities in adults with Marfan syndrome could be affected by the above-mentioned factors that were not well described. The hypothesis of a primary myocardial disease was more persuasive if the authors used Doppler or tissue Doppler imaging to assess systolic or diastolic performance of the right ventricle because both homologous reduced systolic and early diastolic tissue Doppler velocities of both left and right ventricle could more objectively confirm the hypothesis, even if the above-mentioned factors are present and the above-mentioned factors could affect systolic and early diastolic tissue Doppler velocities of both left and right homologously.

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