Noncompaction of the left ventricular myocardium diagnosed during ventriculography

Dear Editor,

The noncompacted myocardium (NCM) is characterised prominent trabeculations and deep intertrabecular recesses due to interruption of the myocardial fiber compacting during embryogenesis. Major clinical features of NCM include heart failure, arrhythmias and thromboembolic events.

A 40-year-old man with shortness of breath, fatigue and chest pain presented at our Clinic. His electrocardiogram had sinus bradycardia and inverted T waves in all precordial leads. For this reason, coronary angiography was performed. But, coronary artery was normal. Surprisingly, left ventricular angiography showed the left ventricle with a wide spongy like layer. The characteristic pattern of NCM was observed in contrast ventriculography, left ventricle showed global hypokinesia (Figure 1). After one day, the patient underwent a transthoracic echocardiogram that showed the multiple muscular trabeculations in the left ventricle (Figure 2). The ejection fraction was 37%.

There are only a few angiographic images of noncompaction of left ventricle in the literature. Its diagnosis is usually established by echocardiography and less frequently left ventriculography. In our case, wide spongiform sinusoidal tissue was detected in contrast ventriculography during angiography. If we used only the echocardiography in this case, we could not establish the correct diagnosis.

Figure 1. Left ventriculography shows prominent intertrabecular recesses filled with contrast. Note also the prominent trabeculations in the left ventricular myocardium.

Figure 2. Two-dimensional apical-four chamber echocardiogram view demonstrating left ventricle with trabeculations and deep intertrabecular recesses. LV: left ventricle; LA: left atrium.

Corresponding Author: Mehmet Ali Elbey, MD; e-mail: elbeymali@hotmail.com
We are presenting here the angiographic and echocardiographic images of noncompacted myocardium in a male patient. It shows that contrast ventriculography may be preferable than echocardiography in some cases.

References


M.A. Elbey, Z. Atilgan, H. Kaya, F. Ertas
Department of Cardiology, Faculty of Medicine, Dicle University, Diyarbakir (Turkey)