Abstract: P1213

Left ventricular non-compaction and coronary artery disease: what's causing systolic dysfunction? a case report

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Topic(s):
Systolic Ventricular Dysfunction

Citation:

Background Left ventricular non-compaction is a rare cardiomyopathy, characterized by hypertrabeculations and deep recesses of the left ventricle.
Clinical manifestations range from no symptoms to progressive left ventricular systolic dysfunction and heart failure, atrial or ventricular arrhythmias and systemic thromboemboli.
The diagnosis of left ventricular non-compaction cardiomyopathy can be made by echocardiography as well as magnetic resonance imaging.

Case Summary We report a case of a 51-year-old man without cardiac risk factors referred to hospital after the finding of complete left bundle block on the ECG and a 6-month history of mild exertional dyspnea. Echocardiography showed a left ventricular ejection fraction of 25%, with prominent hyper-trabeculations, especially in lateral and apical wall. Cardiac magnetic resonance imaging confirmed the diagnosis of left ventricular non-compaction cardiomyopathy (see Picture).
Coronary angiography showed an unexpected obstructive coronary artery disease: a severe stenosis of both the middle tract of left anterior descending artery and first diagonal branch. Lesions were treated with angioplasty and DES implantation.
One month after the revascularization and an adequate medical therapy, repeated echocardiogram confirmed the severe depression of left ventricular function, so an ICD-CRT device was implanted.

Discussion This is a rare case of coexisting left ventricular non-compaction and coronary artery disease in a young patient without cardiac risk factors. An explanation of this association might be that left ventricular compaction occurs simultaneously with the development of the coronary vessel system during gestation. So, the same genes might be involved both in left ventricular non-compaction and in the predisposition to coronary atherosclerosis even in patients without cardiac risk factors.
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