



Foot-like heart

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A 19-year-old woman was admitted to our department with progressive dyspnoea. Physical examination showed signs and symptoms of heart failure. Echocardiography showed diffuse trabeculation of the left ventricle involving the entire apex, the mid-ventricular segments (figure A, video 1), and contrast penetration into the intertrabecular recesses (figure B, video 2) suggestive of left ventricular non-compaction. The left ventricular ejection fraction was moderately decreased and the systolic pulmonary artery pressure estimated by tricuspid regurgitation was roughly 65 mm Hg. Cardiovascular magnetic resonance imaging showed a

diastolic non-compacted to compacted layer ratio of 2.4 (figure C), meeting the current diagnostic criteria of left ventricular non-compaction. Contrast left ventriculography showed a characteristic appearance of multiple broad trabeculations of the left ventricle that had a roughly parallel orientation (figure D, video 3). Left ventricular non-compaction is a rare disorder characterised by thickened left ventricular wall with deep intertrabecular recesses and can be associated with neuromuscular disease. Its main clinical manifestations are heart failure, thromboembolic events, and arrhythmias.

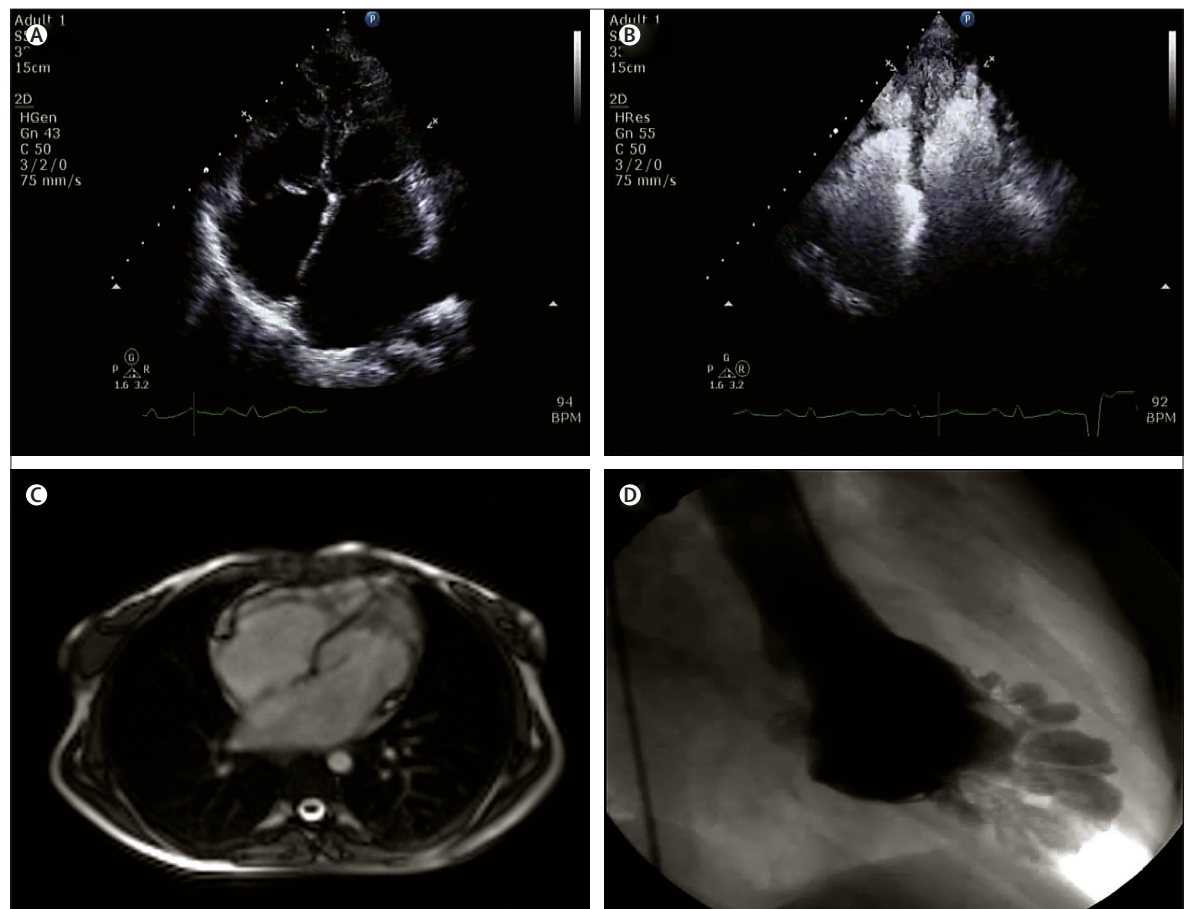


Figure: Left ventricular non-compaction

(A) Two-dimensional echocardiography in the apical four-chamber view showing prominent trabeculations from the apex to middle portion of the left ventricle. (B) Contrast echocardiography showing contrast agent penetrating into the intertrabecular recesses. (C) Magnetic resonance image of the apical four-chamber view showing large trabeculations in the apex of the left ventricle. (D) Left ventriculography (30° right anterior oblique projection) showing a characteristic foot-like appearance.