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CARDIOVASCULAR FLASHLIGHT

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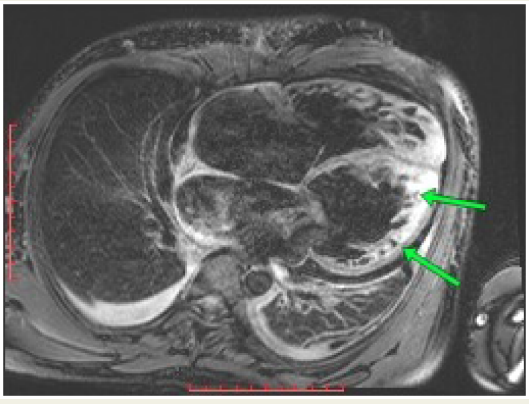
Left ventricular non-compaction

Venkatakrishnan Ramakumar , Vibhav Sharma , and Sundeep Mishra*

Department of Cardiology, All India Institute of Medical Sciences, Ansari Nagar, New Delhi 110029, India

*Corresponding author. Tel: +91 9871421390, Email: drsundeepmishranic@gmail.com



A 27-year-old man presented to the emergency room with worsening shortness of breath for the last 2 weeks with breathlessness at rest and orthopnoea for the last 2 days. Physical examination revealed bibasilar crepitations, an elevated jugular venous pulse, and bilateral ankle oedema. Transthoracic 2D echocardiogram done showed a dilated left ventricle with global hypokinesia, severe left ventricular dysfunction, and an ejection fraction of 25%. The left ventricle also demonstrated a conspicuously thick spongy myocardium with numerous trabeculae (Supplementary material online, *Video S1*). Also seen, were deep blood-filled intra-trabecular crevices, which freely communicate with the left ventricular cavity, as seen on colour-Doppler, suggestive of left ventricular non-compaction (Supplementary material online, *Video S2*). Cardiac magnetic resonance imaging (image) showed a left ventricle with multiple deep trabeculae (green arrows) and thick spongy myocardium suggestive of left ventricular non-compaction. Non-compaction represents a unique cardiomyopathy probably caused by arrested non-compaction of the endomyocardial layer during embryogenesis leading to a thin compact layer and a thick spongy layer in the myocardium. This results in poor contraction of the ventricle and systolic dysfunction. Furthermore, the blood-filled crevices in the spongy layer can be a source for embolic phenomena and can be fatal, making it a unique entity to recognize. Our patient was started on diuretics, ace inhibitors, and aspirin and is currently awaiting a heart transplant.

Supplementary material is available at *European Heart Journal* online.

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Data availability: The images are stored in the medical records of the All India Institute of Medical Sciences, New Delhi and can be provided on reasonable request.

Conflict of interest:The authors have submitted their declaration which can be found in the article Supplementary Material online.