Trabecular Meshwork at the Left Ventricular Apex

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Picture 1.

Picture 2.

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A 73-year-old man with recurrent cerebral infarction was referred to our department for the treatment of heart failure. Electrocardiography (ECG) showed atrial fibrillation, low voltage in the limb leads, and a QS wave in the precordial leads. Two-dimensional echocardiography showed that the left ventricle was enlarged and diffusely hypokinetic. Because echocardiography showed marked thickening and severe trabeculation of the left ventricular apex, the patient was diagnosed with noncompaction of the left ventricle.

Longitudinal strain assessment showed distinct systolic dysfunction of the noncompacted apical segment (Picture 1). Three-dimensional echocardiography of the apex showed that the large trabeculae were not isolated but rather were connected to each other by a meshwork structure (Picture 2). Three-dimensional echocardiography was useful to reveal the structure of the left ventricular noncompaction.

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