Noncompaction of the Ventricular Myocardium

Theodore K. Lau, MD; Scott D. Flamm, MD; Raymond F. Stainback, MD

A 44-year-old Hispanic man underwent a routine cardiac evaluation for kidney transplantation. He had a history of polycystic kidney disease and had been receiving hemodialysis for 2 years. A 2-dimensional echocardiogram revealed large trabeculations and deep recesses in the endocardial wall of both ventricles (Movie I; see Data Supplement). Cardiac magnetic resonance imaging (MRI) also demonstrated abundant trabeculations in both ventricles (Movie II). These findings defined a rare case of isolated noncompaction of the myocardium without any associated cardiac anomaly. The patient subsequently underwent an uneventful renal transplantation.

Noncompaction of myocardium is a type of idiopathic cardiomyopathy that results primarily from an arrest in the compaction of the ventricular endocardial myocytes. Its distinct features are the numerous prominent ventricular trabeculations and deep intertrabecular recesses. Its true incidence is unknown, and only a limited number of case reports have been published. The clinical manifestations may not be evident until late in life. The long-term management of potential sequelae such as thromboembolism, congestive heart failure, and arrhythmias that may lead to sudden cardiac death is controversial.
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