Implantation of a CRT-D in a Patient with Dextrocardia and Situs Inversus Totalis, Who Has Persistent Left Ventricular Dysfunction with VT/VF

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Introduction: Dextrocardia is rare, with an incidence of 0.4 per 10,000 live birth. One-third of the cases are associated with situs inversus, where the major visceral organs, including the heart, are mirror image of their normal positions. Case Presentation. The patient was a 62-year-old woman with known dextrocardia and situs inversus totalis, who was diagnosed as hypertrophic cardiomyopathy in the 1990s. May 10, 2010, she visited our hospital with dyspnea and wheeze. After a while, she was founded to be in ventricular fibrillation, and she was successfully converted to sinus rhythm by multiple external defibrillations. Her transthoracic echocardiography was significant for persistent left ventricular dysfunction with an estimated ejection fraction of 28% and 12-lead electrocardiogram showed sinus bradycardia with left bundle branch block, QRS duration of 160 msec and QTc interval of 0.6. A cardiac catheterization revealed no significant coronary artery disease, non-ischemic cardiomyopathy. We concluded that it was necessary for the patient to receive implantation of a bi-ventricular implantable cardioverter defibrillator (CRT-D), and successfully performed on June 7, 2010. We report a rare case of a CRT-D implantation in a patient with dextrocardia and situs inversus totalis.

Keyword: dextrocardia