



Severely Impaired Leaflet Mobility of the Tricuspid Valve in an Elderly Woman

Tatsuro Hitsumoto, MD; Takuya Hasegawa, MD; Yasuhiro Hamatani, MD; Atsushi Okada, MD; Makoto Amaki, MD; Hiroyuki Takahama, MD; Yasuo Sugano, MD; Hideaki Kanzaki, MD; Satoshi Yasuda, MD; Toshihisa Anzai, MD; Chisato Izumi, MD

An 85-year-old woman with a history of atrial fibrillation (AF), heart failure (HF) and without a history of cancer, was admitted to hospital due to stroke. Echocardiogram showed preserved leaflet mobility of the tricuspid valve with annulus dilatation and moderate tricuspid regurgitation (Figure A,B; Supplementary Movie 1). Five months after discharge, she was readmitted with dyspnea and peripheral edema. Unlike its appearance on the previous echocardiogram, the leaflets of tricuspid valve were now fixed in the full-open position with severe tricuspid regurgitation. (Figure C,D; Supplementary Movie 2). Excessive urinary excretion of 5-hydroxyindolacetic acid (5-HIAA) 71.2 mg/24h (normal, ≤ 4.1 mg/24h) confirmed the clinical diagnosis of carcinoid syndrome, although the origin of carcinoid tumor was not determined. Three months after discharge, the patient died of HF. Functional tricuspid regurgitation is common in patients with chronic AF, especially in elderly women. Tricuspid valve impairment due to carcinoid involvement indicates limited life

expectancy after first diagnosis of carcinoid heart disease.¹ The present case suggests that screening of urinary excretion of 5-HIAA might be useful to predict progressive impairment of tricuspid valve and progression of HF even in patients with a common appearance of tricuspid valve with moderate regurgitation.

Disclosure

The authors declare no conflicts of interest.

Reference

1. Møller JE, Pellikka PA, Bernheim AM, Schaff HV, Rubin J, Connolly HM. Prognosis of carcinoid heart disease: Analysis of 200 cases over two decades. *Circulation* 2005; **112**: 3320–3327.

Supplementary Files

Supplementary Movie 1. Transthoracic echocardiography at the first admission due to heart failure.

Supplementary Movie 2. Two- and 3-D transthoracic echocardiography during rehospitalization due to heart failure.

Please find supplementary file(s);
<http://dx.doi.org/10.1253/circrep.CR-18-0020>

Received November 27, 2018; accepted November 27, 2018; J-STAGE Advance Publication released online December 15, 2018 Time for primary review: 1 day

Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Suita, Japan

Mailing address: Takuya Hasegawa, MD, Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, 5-7-1 Fujishiro-dai, Suita 565-8565, Japan. E-mail: hasegawa@nccvc.go.jp

ISSN-2434-0790 All rights are reserved to the Japanese Circulation Society. For permissions, please e-mail: cr@j-circ.or.jp

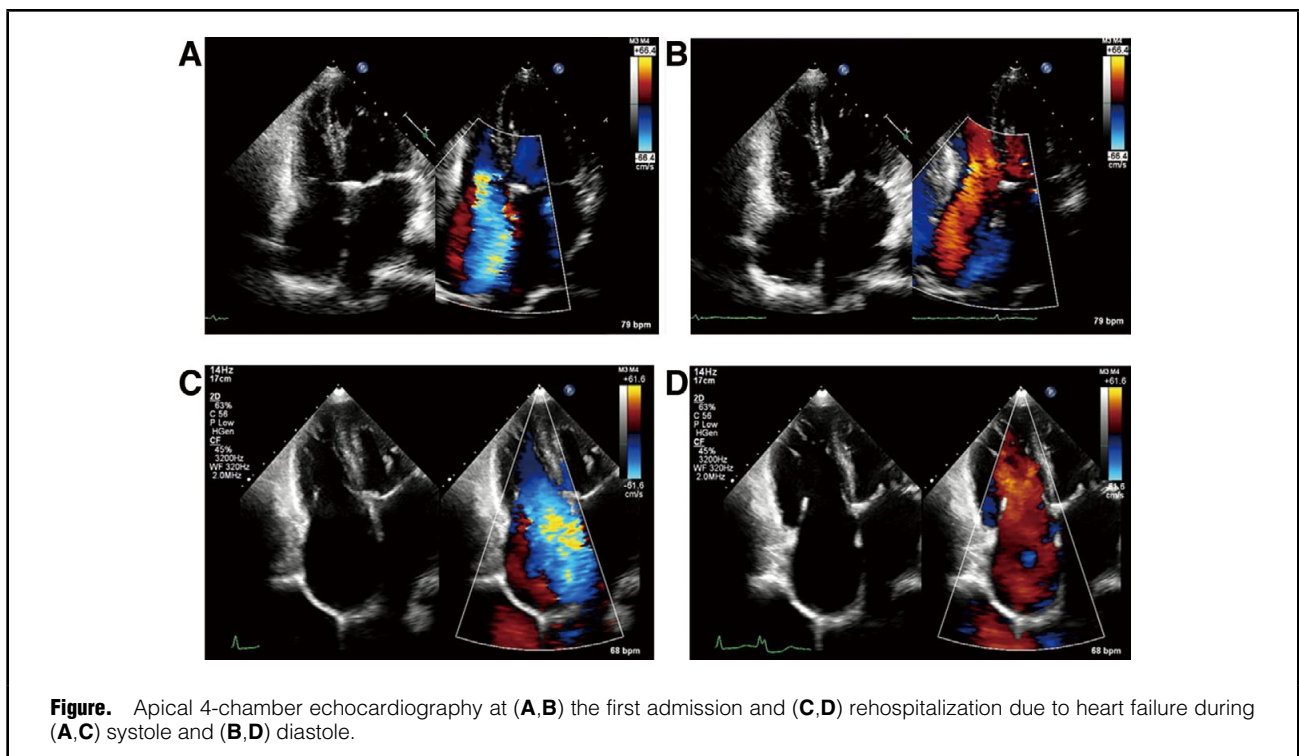


Figure. Apical 4-chamber echocardiography at (A,B) the first admission and (C,D) rehospitalization due to heart failure during (A,C) systole and (B,D) diastole.