

# Cardiology Case Study – Cardiomyopathy

*Courtesy of Dr. Guang Zhi, PLA General Hospital, Beijing, China*

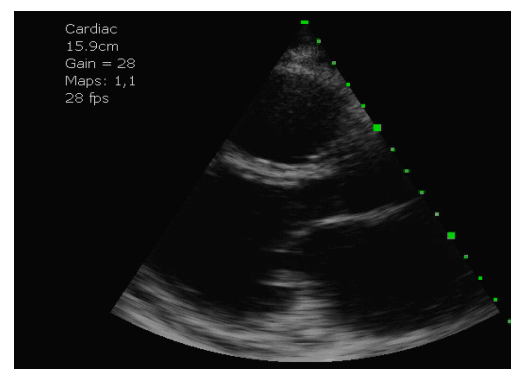


## Patient History

The following case study was conducted by the Department of Cardiology at the PLA General Hospital, Beijing China.

A 49-year-old male patient presented to the cardiology department with symptoms of chest distress, shortness of breath, and abdominal distention. The patient had a pacemaker implanted seven years ago. The patient's blood pressure, temperature, and pulse measurements were within normal limits. No precardiac prominence was detected and apical pulsation was normal. Cardiac silhouette was enlarged to the left. Cardiac rhythm was regular; the first heart sound was normal, and a systolic murmur was heard from the mitral valve and tricuspid valve. ECG exam showed pacing rhythm and atrial flutter. Based on clinical symptoms and findings, dilated cardiomyopathy and arrhythmia were indicated. An ultrasound examination was suggested for further diagnosis and treatment. The ACUSON P10™ ultrasound system was used at the bedside to perform a quick check before a full ultrasound examination.

## Image Findings



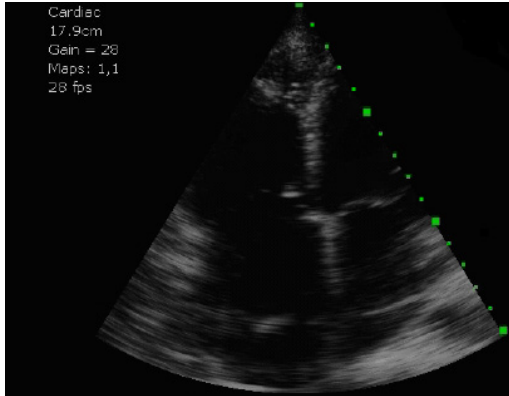
The ACUSON P10 system demonstrated enlarged cardiac chambers and decreased cardiac wall motion. Ventricular septum and posterior left ventricular (LV) wall thickness may be normal or thinned. Impairment of cardiac function is observed. LV systolic function and Ejection Fraction (EF) are severely decreased. A small amount of pericardial effusion is observed along the posterior wall of LV.

## ACUSON P10 ultrasound system

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Echo of pacemaker lead can be observed.

## Ultrasound Solution

The ACUSON P10 system with its ultra portability and imaging capability can be used in cardiology for quick examination. In this case, the morphological finding of the ACUSON P10 system matches the finding from a full-size ultrasound system. Its excellent portability and fairly good B-mode image quality provide cardiologists a powerful and handy tool for initial examination purposes, especially when the patient's mobility is restricted.

## Clinical Outcome

The clinical picture indicates dilated cardiomyopathy. General treatment includes avoiding stress, limiting salt in diet, and having periods of rest, which will help reduce the strain on the heart. Drugs can only relieve symptoms but cannot prolong survival time. Heart failure in dilated cardiomyopathy is often fatal. Due to this poor prognosis, dilated cardiomyopathy is the most common reason for heart transplantation.

Standalone clinical images may have been cropped to better visualize pathology.

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