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**CLINICAL VIGNETTE**

doi:10.1093/eurheartj/ehn016

Online publish-ahead-of-print 24 January 2008

**Congenital left ventricular diverticuli with anomalous course of right coronary artery surrounding diverticular neck**

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A 20-year-old woman presented with atypical chest pain. Her past medical and family histories were unremarkable. Her physical examination was within normal limits. Electrocardiogram revealed normal sinus rhythm. Cardiac enzymes were within normal limits. On transthoracic echocardiography, parasternal long-axis and apical four-chamber views were normal; however, parasternal short-axis and apical two-chamber views revealed contractile diverticuli in the inferior wall of the left ventricle at its junction with posterior mitral leaflet (A). It had muscular wall with similar acoustic properties to the ventricular wall. Posterior papillary muscle of the mitral valve was originating from diverticulum but mitral valve was functioning properly and there was no mitral insufficiency.

Transesophageal echocardiography was compatible with transthoracic echocardiography (B).

On coronary angiogram, left coronary system was of normal origin, distribution, and was free of atherosclerosis. Right coronary artery was of normal origin, but posterolateral branch was relatively well developed and surrounding the diverticular neck in a circular manner (C). On left ventriculogram, the contractile diverticuli were clearly demonstrated in basal region of the inferior wall (D and E).

Diverticuli have been reported to be associated with various cardiac and extracardiac anomalies but anomalous course of the right coronary artery surrounding the diverticular neck has not been reported previously. Treatment of diverticuli is controversial and by either surgical removal or medical follow-up which depends largely on clinical presentation of the patient and presence of associated anomaly. We treated the patient medically and she was free of any symptom and complication on 1 year follow-up.

Apical two chamber view of transthoracic (A) and middle esophageal view of transesophageal echocardiography demonstrating the diverticuli (B). Left anterior oblique cranial view of the right coronary artery demonstrating that the diverticular neck is surrounded by the relatively well developed posterolateral branch (C). Left ventriculogram in right anterior oblique view in diastole (D) and systole (E) clearly demonstrating the contractile diverticuli. LV, left ventricle; LA, left atrium; D, diverticulum; RV, right ventricle.

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