


The above article uses a new reference style being piloted by the EHJ that shall soon be used for all articles.

---

**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**

*Orhan Ozer*, Vedat Davutoglu, and Ibrahim Sari

Department of Cardiology, School of Medicine, Sahinbey Medical Center, Gaziantep University, Gaziantep 27310, Turkey

* Corresponding author. Tel: +90 505 2967175; Fax: +90 342 3603928. Email: oozer@gaziantep.edu.tr

A 20-year-old woman presented with atypical chest pain. Her past medical and family histories were unremarkable. Her physical examination was normal. 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 basol 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.

Published on behalf of the European Society of Cardiology. All rights reserved. © The Author 2008. For permissions please email: journals.permissions@oxfordjournals.org.