the brain demonstrable on MRI, although the timing of onset of these lesions could not be determined. If the results of this study are confirmed in a larger study, the packed cell volume (or resting arterial oxygen saturation) and blood protein C activity may be useful markers of such brain changes and for prediction of susceptibility of patients with CCHD to cerebrovascular events.

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IMAGES IN CARDIOLOGY

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Fistulas from all three major coronaries arteries to the left ventricle

A 45 year old woman was admitted to our hospital because a diastolic cardiac murmur was detected at her annual check up. On arrival, the physical examination was negative except for an audible grade 2/6 diastolic cardiac murmur. A two dimensional echocardiogram revealed dilated coronary arteries. All heart valves were normal. A colour Doppler echocardiogram showed turbulent inflows to the left ventricular cavity through the ventricular septum and the lateral wall of the left ventricle. A coronary angiogram revealed multiple communications arising from all three major coronary arteries which drained exclusively into the left ventricle without an interposing capillary phase or venous filling (panels A and B). Right heart catheterisation showed normal findings, and no evidence of a left-to-right shunt. Volume rendered multislice computed tomography (CT) revealed aneurysmal changes of the proximal left coronary artery, which was extremely dilated and tortuous throughout its course (panel C). Contrast enhanced multislice CT showed several small vessels penetrating the myocardium (panel D).

We describe here an extremely rare case involving fistulas from all three major coronary arteries to the left ventricle, with CT showing penetration of the myocardium. We have followed the patient conservatively without any medication because she is completely asymptomatic and there is no change in her cardiac function.

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The coronary angiogram was followed by opacification with contrast material exclusively drained into the left ventricle through multiple communications arising from all three major coronary artery (A: left coronary artery; B: right coronary artery).

Volume rendered multislice spiral CT (C) showed an extremely dilated and tortuous left coronary artery throughout its course. Contrast enhanced multislice CT (B) revealed an extremely dilated coronary artery (white arrows), and several small vessels penetrating the myocardium (black arrows).