A 55-year-old man presented with dyspnea on effort and atypical chest pain. Physical examination revealed a loud, continuous cardiac murmur over the left parasternal area. A coronary arteriovenous fistula draining into the right atrium was suspected at transthoracic echocardiography (Figures 1 and 2) and clearly documented by transesophageal echocardiography (Figure 3) and coronary arteriography (Figure 4).

**Figure 1.** Color Doppler transthoracic echocardiogram. Right, Two-dimensional (2D), parasternal short-axis view showing vascular structure posterior to aortic root. RA indicates right atrium; LA, left atrium; and AO, aortic root. Left, 2D targeted M-mode echocardiogram documents a systolic-diastolic flow with maximal diastolic intensity.
Figure 2. Color and continuous-wave Doppler transthoracic echocardiograms, subcostal 4-chamber view. Continuous, high-velocity (>5 m/s) flow is documented in right atrium; left atrial origin can easily be excluded.
Figure 3. Transesophageal echocardiogram, transverse plane.
Top, 2D imaging. Huge coronary aneurysm (A) originating from left sinus and fistula (F) can be seen. Bottom, Color Doppler imaging. Diastolic flow across fistula, directed toward right atrium, is shown. Other abbreviations as in Figure 1.

Figure 4. Top, Aortic angiography, posteroanterior projection. Normal right coronary artery is shown. Huge aneurysmatic vessel (A) originates from left coronary sinus. Bottom, Selective left coronary angiography, left anterior oblique projection. Fistula (F) draining into right atrium is demonstrated.
Coronary Arteriovenous Aneurysmatic Fistula Draining Into the Right Atrium
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