Effect of migraine treatment on heart

Amol Raizada1, Satya S. Vittala1, Mohammad Q. Najib1, Patrick A. DeValeria2, and Hari P. Chaliki1*

1Division of Cardiovascular Diseases, Mayo Clinic, 13400 E Shea Blvd, Scottsdale, AZ 85259, USA and 2Division of Cardiovascular and Thoracic Surgery, Mayo Clinic, Scottsdale, AZ, USA

* Corresponding author. Tel: +1 480 301 8000, Fax: +1 480 301 8018, Email: chaliki.hari@mayo.edu

Case report

A 59-year-old woman presented for evaluation of palpitations, orthopnoea, and dyspnoea on exertion. On examination, the patient was found to have an apical holosystolic murmur suggestive of mitral regurgitation. She had no history of rheumatic heart disease but had experienced migraine headaches for which she started taking methysergide when she was 51 years old. She stopped using the methysergide at age 53, when it was stopped by her physicians. The patient subsequently experienced considerable improvement in cardiac symptoms and exercise tolerance. She had a history of use of appetite suppressants. A transthoracic echocardiogram revealed a holosystolic murmur suggestive of mitral regurgitation. The tricuspid valve showed partial fusion of the leaflet to the septum, with severe tricuspid regurgitation and right atrial enlargement. The patient was found to have an apical holosystolic murmur suggestive of mitral regurgitation and by radionuclide angiography. Am J Noninvasive Cardiol 1991;5:321–7.

The tricuspid valve showed partial fusion of the leaflet to the septum, with severe tricuspid regurgitation and right atrial enlargement (Figure 1C and D). Left ventricular function was normal, and there was no evidence of endocarditis. Cardiac catheterization showed normal right heart pressures and no clinically significant coronary disease. The patient underwent mitral valve replacement and tricuspid valve repair. Histopathologic findings indicated myxomatous disease of the mitral valve. Postoperatively, DHE was discontinued and the patient subsequently experienced considerable improvement in cardiac symptoms and exercise tolerance.

In contrast to carcinoid heart disease, drug-induced valve disease primarily affects the left heart valves. Although related to stimulation of serotonin receptors, the exact mechanism of preferential left-sided valve involvement is still unclear. Our case is notable because both the right- and left-sided valves were involved.

Figure 1. Transthoracic echocardiogram. (A) Parasternal long-axis view shows thickened mitral valve (arrow); (B) Apical long-axis view shows regurgitant jet across dysfunctional mitral valve; (C) right ventricular (RV) inflow view shows thickened tricuspid valve (arrow); and (D) RV inflow view shows regurgitant jet across dysfunctional tricuspid valve. LA, left atrium; LV, left ventricle; RA, right atrium; RV, right ventricle.

Published on behalf of the European Society of Cardiology. All rights reserved. © The Author 2011. For permissions please email: journals.permissions@oup.com.