Quadricuspid aortic valve

Ali Reza Moaref and Amir Aslani*

Cardiology Department, Shiraz University of Medical Sciences, Shiraz, Iran

Received 6 December 2006; accepted after revision 27 December 2006; online publish-ahead-of-print 9 March 2007

KEYWORDS
Quadricuspid aortic valve; Aortic regurgitation

Illustration
A 57-year-old woman presented with a history of dyspnea on exertion since 4 months prior to admission. She denied chest pain. Her medical history was not significant. Physical examination revealed wide pulse pressure and arterial hypertension (170/65 mmHg). A diastolic murmur of grade 4/6 was heard at the left sternal border. ECG displayed sinus rhythm with evidence of left ventricular enlargement. Chest x-ray showed cardiomegaly. Review of previous transthoracic echocardiography of the patient, which was done 6 months earlier, revealed only moderate aortic regurgitation. Another echocardiography was done that revealed severe aortic regurgitation and normal appearing aortic valve. The patient underwent trans-esophageal echocardiography for detailed echocardiographic examination of the aortic valve and root. Interestingly, trans-esophageal echocardiography showed a quadricuspid aortic valve with poor coaptation of aortic leaflets (Figure 1A–C) (see Movie Clip 1). Also, severe aortic regurgitation was detected (Figure 1D) (see Movie Clip 2). Quadricuspid aortic valve is a rare congenital heart defect and has been an incidental finding at open heart surgery or at autopsy.1 Hurwitz et al.2 introduced a classification nomenclature for quadricuspid aortic valve that included seven different types named A to G.

Supplementary material
Supplementary material associated with this article can be found in the online version.

References
Figure 1  Trans-esophageal echocardiography of a patient presenting with a history of dyspnea on exertion for 4 months prior to admission. A quadricuspid aortic valve with poor aortic leaflets coaptation is seen (A-C). Severe aortic regurgitation is also seen (D).