Quadricuspid aortic valve

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A 36-year-old man with a history of dyslipidemia underwent transthoracic echocardiography for evaluation of exertional dyspnea, chest heaviness and dizziness. The echocardiography showed a quadricuspid aortic valve with adequate opening of the mildly thickened valve cusps and moderate aortic regurgitation. A short-axis view of the transthoracic, two-dimensional echocardiography revealed a quadricuspid aortic valve in diastole (Figure 1A) and in systole (Figure 1B).

Isolated quadricuspid aortic valve is a very rare congenital anomaly that may be found unexpectedly during surgery or autopsy, or may be diagnosed preoperatively by echocardiography. The prevalence ranges between 0.013% and 0.043%, according to a recent echocardiography database (1).

Two-dimensional transthoracic echocardiography and transesophageal echocardiography play an essential role in the diagnosis of an isolated quadricuspid aortic valve. Aortic insufficiency resulting from cusp malcoaptation is the most common hemodynamic abnormality associated with this anomaly. Valve replacement is frequently required after the fourth decade of life (1).

REFERENCE

1. Holm H, Jacobson S, Reul GJ, Stainback RE. Quadricuspid aortic valve. *Tex Heart Inst J* 2004;31:450-1.

Figure 1 A short-axis view of a transthoracic two-dimensional echocardiography revealing a quadricuspid aortic valve in diastole (A) and in systole (B)

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