Congenital aorta to right atrial fistula

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A 25 year-old female was found to have a continuous murmur along the right parasternal border during pre-operative examination for patellar tendon surgery. On two-dimensional transthoracic echocardiography (TTE), an echolucent tunnel measuring 3 mm in width from the noncoronary cusp of the aortic valve to the right atrium was identified (Fig. 1A). Color Doppler imaging on TTE confirmed the presence of left to right shunting across the aorta to right atrial fistula during both systole and diastole (Fig. 1B). Electrocardiogram gated computed tomography confirmed the presence of a 3–4 mm defect in the noncoronary sinus of Valsalva, resulting in communication with the right atrium. There was also a blush of contrast adjacent to the defect suggestive of flow from the aorta to
the right atrium (Figs. 1C, D). The patient underwent successful surgical closure of the tunnel, due to the increased future risk of right ventricular volume overload, aneurysm formation, infective endocarditis and spontaneous rupture if left untreated.

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