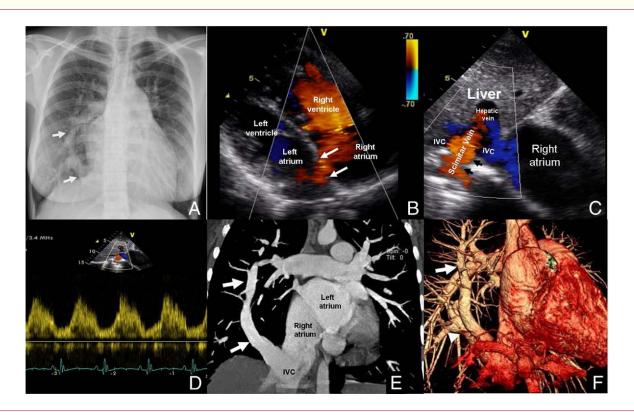
IMAGES IN CARDIOLOGY

Scimitar Sign in a Patient With an Atrial Septal Defect

A Comprehensive Noninvasive Assessment With Transthoracic Echocardiography and Computed Tomography

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From the *Division of Cardiology, Department of Internal Medicine, and †Department of Radiology, Chulalongkorn University, Bangkok, Thailand. Manuscript received March 13, 2009; accepted March 18, 2009. 30-year-old woman was referred for a percutaneous atrial septal defect (ASD) closure. She was acyanotic. She had a systolic ejection murmur and a wide-fixed split S2. The chest radiograph showed cardiomegaly; pulmonary arterial hypertension; and the "scimitar sign" (A, arrows), a curvilinear opacity created by the anomalous right pulmonary vein (PV) draining into the inferior vena cava (IVC). An echocardiogram demonstrated a secondum ASD (B, arrows, Online Video 1) with left-to-right shunt and anomalous right PVs (scimitar vein) (C, black arrows, Online Video 2), confirmed by spectral Doppler (D), emptying into IVC-right atrial junction. Contrast-enhanced computed tomography showed a large scimitar vein (E, arrows) created by a splice of right superior (F, arrow) and inferior (F, arrowhead) PVs draining into the IVC. This case highlights the essence of recognition of the scimitar sign in a patient with an ASD. Failure to identify anomalous pulmonary or scimitar vein leads to persistent left-to-right shunt and pulmonary arterial hypertension after ASD closure.