History
10 year old with trisomy 21 and prior congenital heart defect repair.

Diagnosis
Subaortic Membrane

Discussion
Left ventricular outflow tract obstructions encompass a series of stenotic lesions starting in the anatomic left ventricular outflow tract and stretching to the descending portion of the aortic arch. Obstruction may be subvalvar, valvar, or supravalvar. These obstructions to forward flow may present alone or in concert, as in the frequent association of a bicuspid aortic valve with coarctation of the aorta. All of these lesions impose increased afterload on the left ventricle and, if severe and untreated, result in hypertrophy and eventual dilatation and failure of the left ventricle. Left ventricular outlet obstructions are congenital in the vast majority of children and associated with various congenital heart defects (most commonly septal defect, patent ductus arteriosus, aortic arch anomalies, bicuspid aortic valve, abnormal left ventricular papillary muscle, Shone complex, and persistent superior left vena cava). In most patients, subaortic membrane is detected in the course of follow-up care for associated congenital heart disease. Many patients are asymptomatic although exertional dyspnea or aortic valve dysfunction may be present. Resection with or without myotomy is the treatment of choice.

Findings
CT-Optimized coronal image from a CT angiogram demonstrating a circumferential membrane below the aortic valve plane.

Reference
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