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Heather L Gornik, Paul Schoenhagen, John H Chiu, Amjad Almahameed, Arman T Askari, et al.. Acute aortic intramural hematoma associated with severe bilateral renal artery stenosis. *Vascular Medicine*, 2006, 11 (4), pp.268-270. 10.1177/1358863x06075183 . hal-00571397

HAL Id: hal-00571397

<https://hal.science/hal-00571397>

Submitted on 1 Mar 2011

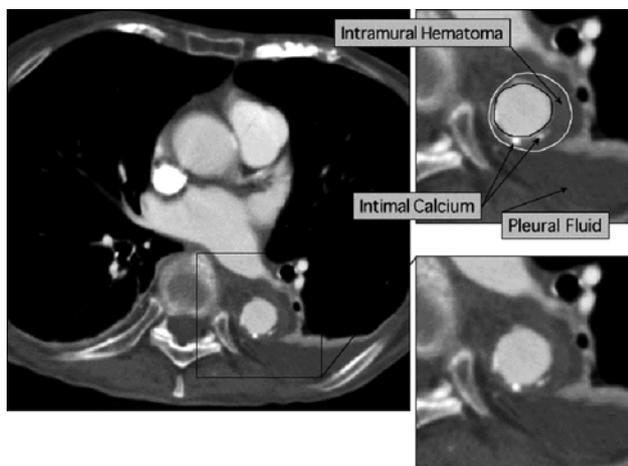
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Images in vascular medicine

Acute aortic intramural hematoma associated with severe bilateral renal artery stenosis

Heather L Gornik^a, Paul Schoenhagen^{a,b}, John H Chiu^a, Amjad AlMahameed^a, Arman T Askari^a and Patrick L Whitlow^a



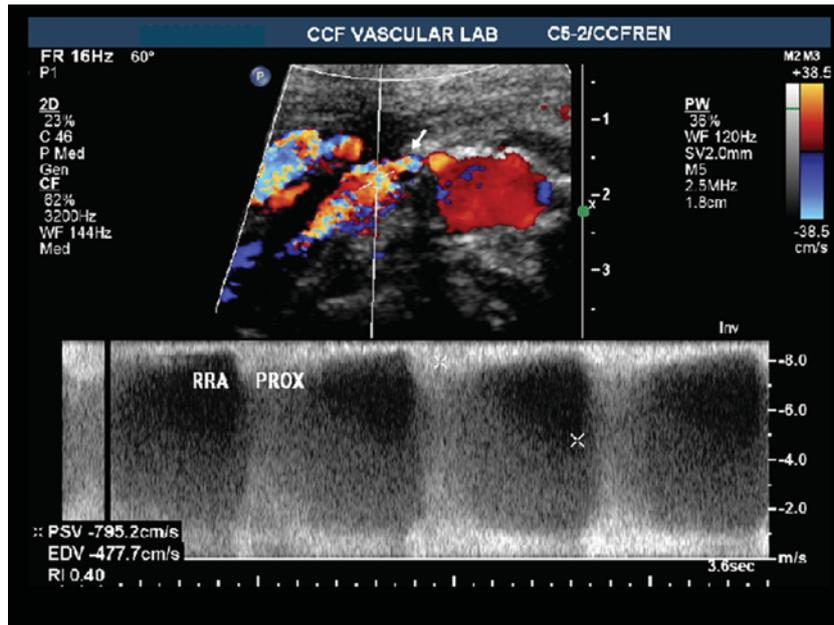
Panel A

A 77-year-old woman presented with the acute onset of severe intrascapular back pain. Her blood pressure was 220/90 mmHg. A computed tomogram of the chest with intravenous contrast revealed extensive atherosclerosis and an acute Type B intramural hematoma of the descending thoracic aorta (Panel A). The patient had known coronary artery disease, with previous percutaneous coronary intervention, and a long-standing history of hypertension. Abdominal duplex ultrasound demonstrated markedly elevated peak systolic velocities (PSV) in both the right (Panel B) and the left (Panel C) renal arteries, consistent with bilateral 60–99% stenoses. Bilateral post-stenotic turbulence was noted on color Doppler (white arrows). The end-diastolic velocity in the right renal artery of 478 cm/s was suggestive of greater than 80% stenosis. Velocity in the abdominal aorta was normal. Angiography confirmed the presence of severe bilateral renal artery stenosis (Panel D, top). The left renal artery was heavily calcified (black arrow). The patient underwent bilateral renal artery stenting with an excellent angiographic result (Panel D, bottom).

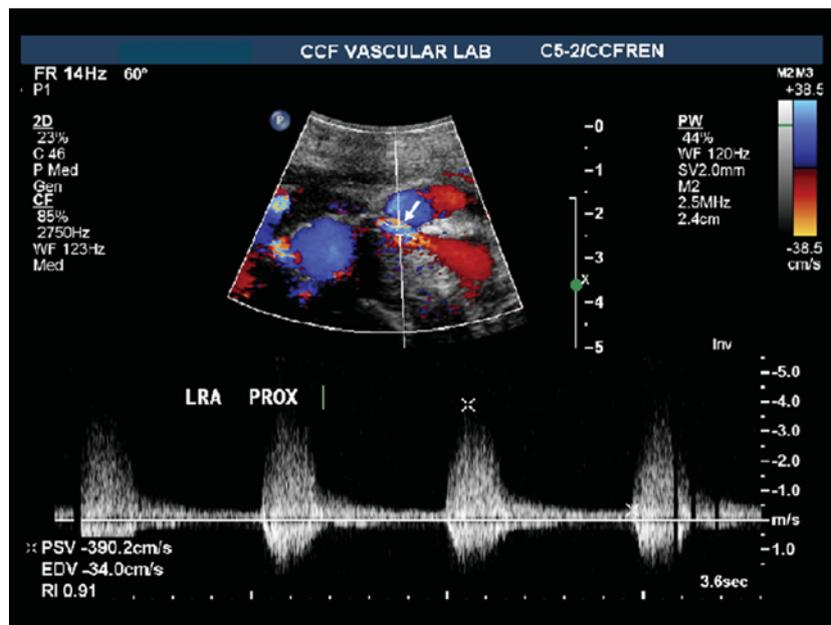
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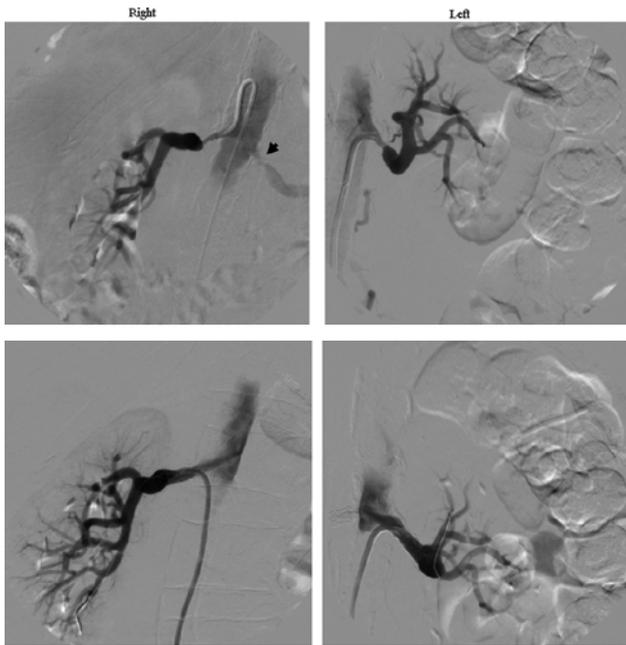
Mark A Creager, MD, was the editor for this paper.



Panel B



Panel C



Panel D

At follow-up, after hospital discharge, the patient's blood pressure was easily controlled on two agents. Hypertension is the most common predisposing factor among patients with acute aortic intramural hematoma.¹ The possibility of a secondary cause of hypertension should be considered among patients with an acute aortic syndrome and severe hypertension, particularly among those patients with clinical clues suggestive of a specific diagnosis.

Reference

- 1 Evangelista A, Mukherjee D, Mehta RH et al. Acute intramural hematoma of the aorta: a mystery in evolution. *Circulation* 2005; **111**: 1063–70.

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