

UCLA

UCLA Previously Published Works

Title

A case of midventricular obstruction and apical aneurysm.

Permalink

<https://escholarship.org/uc/item/55h3c8gf>

Journal

JOURNAL OF INVESTIGATIVE MEDICINE, 53(1)

ISSN

1081-5589

Authors

Dinh, H

Pal, S

Honda, H

et al.

Publication Date

2005

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

A CASE OF MIDVENTRICULAR OBSTRUCTION AND APICAL ANEURYSM. H. Dinh, S. Pal, H. Honda, J. Child, J. Tobis, David Geffen School of Medicine at UCLA, Los Angeles, CA. A 32-year old male hip-hop dancer with a history of recurrent syncope was admitted with aphasia and right arm weakness. On admission, the patient was afebrile and normotensive. Examination demonstrated a II/VI early apical systolic murmur and a II/VI mid-peaking systolic murmur at the left sternal border. The left ventricular impulse was displaced inferiorly.

ECG showed normal sinus rhythm and LVH with strain (Figure 1). MRI revealed an acute left frontal opercular insular infarct. Stroke workup included an echocardiogram that showed markedly hypertrophied mid-portions of the LV (Figure 2), akinetic and aneurysmal apex and an estimated mid ventricular gradient of 175 mm Hg (Figure 3). Radionuclear study showed a fixed defect in the distal inferior wall and apex. The patient's hospital course was marked by multiple episodes of hypotension refractory to medical treatment. Ethanol septal ablation under echocardiography guidance was performed. Hemodynamics prior to septal ablation showed a PA pressure of 36/18 mm Hg with a wedge pressure of 18 mm Hg. The cardiac output was 2.2 by thermodilution. Left heart catheterization showed reversal of flow in the septal perforating arteries in the mid LV. The second septal perforator was occluded with balloon inflation and 100% ethanol was injected (Figure 4). Midventricular gradient decreased from 175 mm Hg to 100 mm Hg (Figure 5). Troponin level peaked at 70 ng/mL. Automatic implantable cardioverter-defibrillator was placed due to low ejection fraction. One month following discharge, the patient had returned to his usual activities (except for vigorous dancing) and was able to achieve 8.5 METS with minimal symptoms and eighty percent of his maximal predicted heart rate on a treadmill stress test with nonspecific electrocardiogram changes.

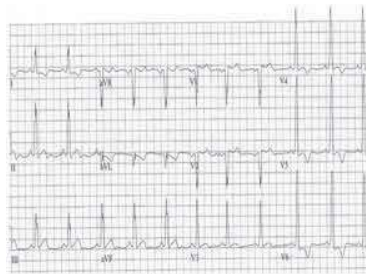


Figure 1.

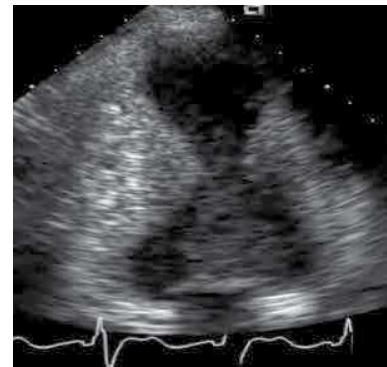


Figure 2.

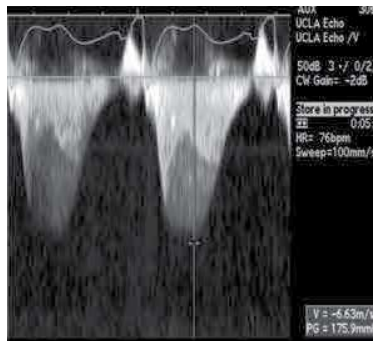


Figure 3.



Figure 4.

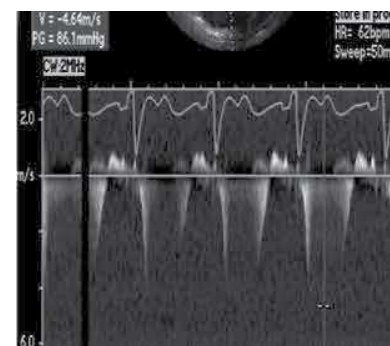


Figure 5.