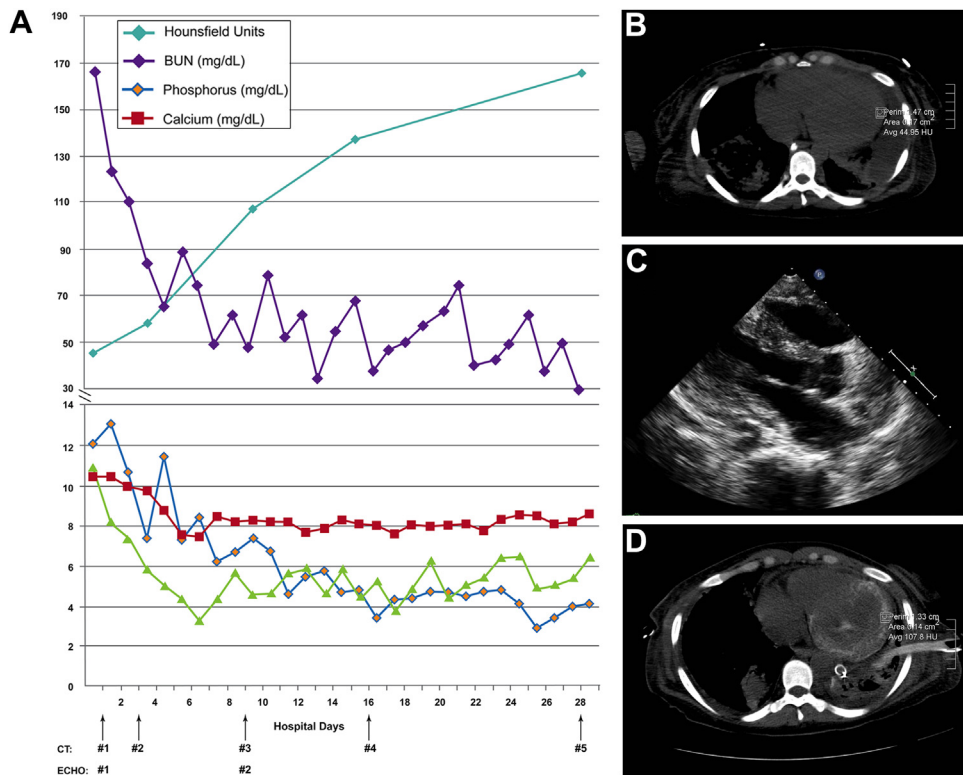


IMAGES IN CARDIOLOGY

A Heart of Stone

Rapid Metastatic Cardiac Calcification in an End-Stage Renal Disease Patient

Jason N. Salamon, MD,* Mario J. Garcia, MD,† Mark Guelfguat, DO,‡ Jay S. Meisner, MD, PhD§
Bronx, New York



From the *Department of Medicine, Albert Einstein College of Medicine/Jacobi Medical Center, Bronx, New York; †Department of Cardiology, Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, New York; ‡Department of Radiology, Albert Einstein College of Medicine/Jacobi Medical Center, Bronx, New York; and the §Department of Medicine (Cardiology), Albert Einstein College of Medicine/Jacobi Medical Center, Bronx, New York. Manuscript received December 20, 2012; accepted January 8, 2013.

Disturbed calcium-phosphate metabolism can cause metastatic calcium deposition throughout the body. After missing 2 sessions of dialysis and medication noncompliance, severe electrolyte abnormalities developed in our patient (A). On day 1 of admission, a chest computed tomography (CT) scan demonstrated no cardiac or soft-tissue calcifications (B). Concurrently, echocardiography revealed an ejection fraction of 65% by the method of disks with no wall motion abnormalities or evidence of ventricular septal hyper-echogenicity (C). On hospital day 9, a repeat CT scan of the chest was performed revealing diffuse amorphous calcifications throughout the left ventricular myocardium and papillary muscles with relative sparing of the interventricular septum (D). A significant increase in radiodensity was detected, consistent with calcium deposition (A). Concomitant echocardiography revealed intact left ventricular function with an ejection fraction of 65% and no wall motion abnormalities with the presence of septal hyperechogenicity. Over the course of her hospitalization, 2 more CT scans were performed revealing continued evidence of myocardial calcification (A).