

## Case Reports: Tales from the Trenches

**John M. Bailitz, MD, RDMS, FACEP**  
Emergency Ultrasound Director  
Cook County Emergency Medicine  
Assistant Professor, Department of Emergency  
Medicine/Rush University Medical School

**Roderick Roxa, MD,**  
Emergency US Fellow  
Cook County Emergency Medicine

# Vscan\* helps reveal pulmonary embolism in patient being treated for MI

A 50-year-old male presented to the Emergency Room with shortness of breath, dyspnea on exertion, and chest pain which he described as “pressure.” He was placed in the Resuscitation Area because of this active chest pain and unstable vital signs, and the primary team began working him up for myocardial infarction.

At the same time, an immediate bedside echo exam was conducted using the Vscan pocket-sized ultrasound device. The parasternal long view (Fig. 1) was normal. However, the parasternal short view (Fig. 2) seemed to demonstrate either a septal infarct or paradoxical septal movement. The apical four-chamber view (Fig. 3) not only enabled confirmation of the paradoxical septal movement, but also revealed marked dilation of the right ventricle.

The patient admitted a history of diabetes, hypertension, and asthma, but did not know if he had a family history of PE or DVT. Although only trace edema was observed in his left leg, he did acknowledge having experienced intermittent, bilateral leg swelling in recent weeks.

Pulmonary embolism was therefore suspected. A comprehensive ultrasound exam using the GE Healthcare LOGIQ\* *e* system with a vascular probe revealed a left proximal popliteal DVT. The primary team therefore began anticoagulation therapy immediately. Afterwards, the CT scan aided in confirming the bilateral pulmonary emboli.



### High-quality ultrasound, literally at your fingertips.

Emergency Department physicians don't always have immediate access to comprehensive ultrasound exams. The solution? GE Healthcare's new, pocket-sized Vscan ultrasound device.

The Vscan is portable enough to slip into the pocket of a lab coat for on-the-spot evaluations.

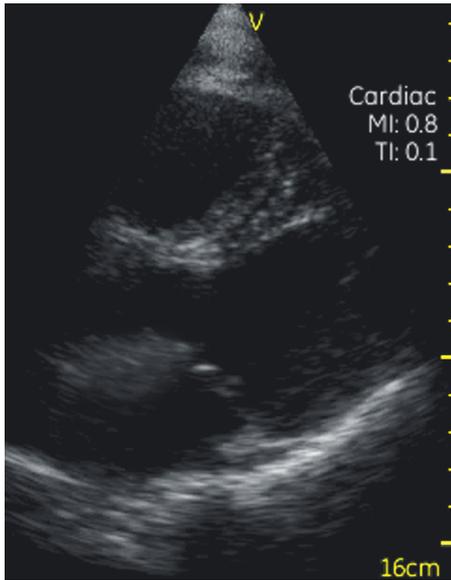
In fact, Emergency Medicine physicians are finding that its performance and excellent image quality can speed diagnosis and initiation of the appropriate treatment, supporting the goals of improving outcomes and streamlining patient management.



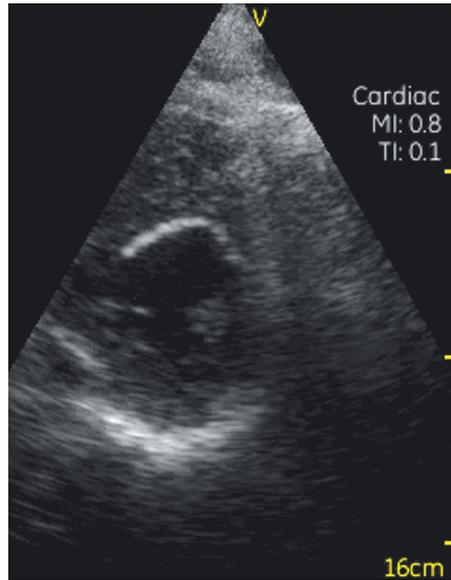
## Discussion

With no pertinent risk factors, this patient seemed to be negative for pulmonary embolism. MI or asthma would have been the most likely differential diagnoses, while PE would have been low on the list of possibilities.

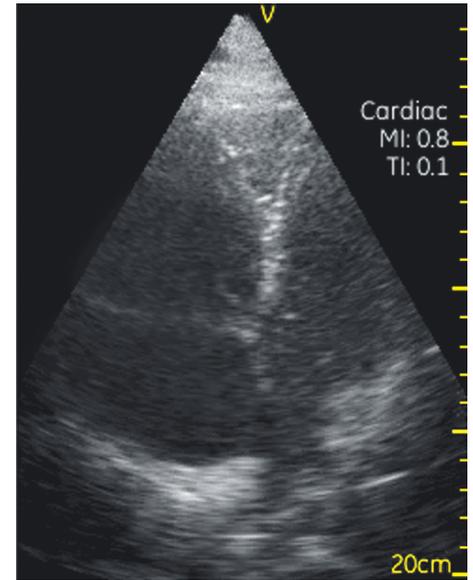
The Emergency Medicine team would have arrived at the correct diagnosis eventually. However, because the Vscan provided a fast, accurate cardiac view, the team was able to arrive at this diagnosis very early, and to initiate the appropriate treatment immediately.



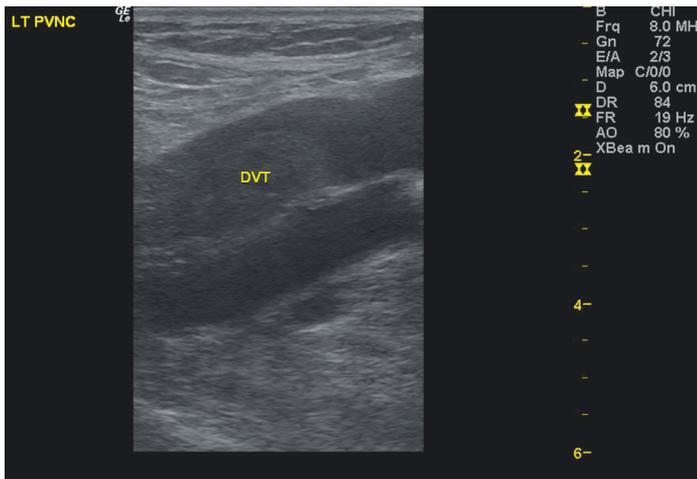
**Figure 1:** Parasternal long (PXL) loop appears normal; PXL does not visualize the right heart adequately.



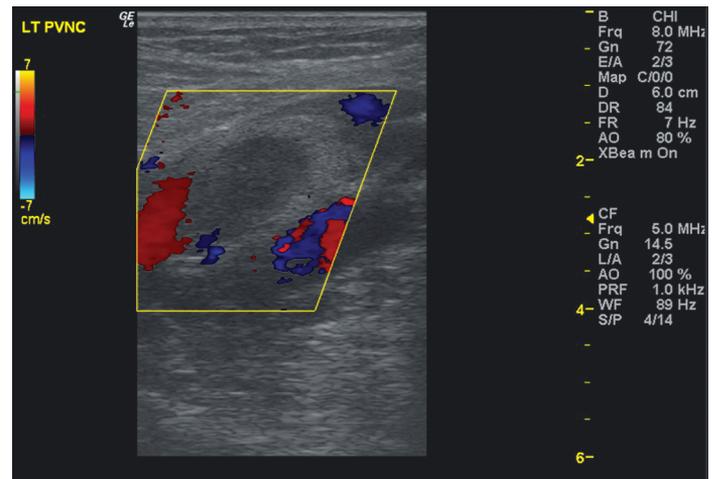
**Figure 2:** Parasternal short loop again appears normal.



**Figure 3:** Apical four-chamber view with obvious right ventricle dilation displayed on left side, versus left ventricle size on right side.



**Figure 4:** Left Popliteal Vein Non Compressed demonstrated an echogenic DVT.



**Figure 5:** Absence of color flow confirms the clot obstruction.

GE Healthcare  
9900 Innovation Drive  
Wauwatosa, WI 53226  
U.S.A.  
888 239 0203

<http://vscan.gehealthcare.com>



imagination at work

©2011 General Electric Company – All rights reserved.

General Electric Company reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation.

GE and GE Monogram are trademarks of General Electric Company.

GE Medical Systems Ultrasound & Primary Care Diagnostics, LLC, a General Electric Company, doing business as GE Healthcare.

\*Trademark of General Electric Company.

ULTP-0506-06.11-EN-US  
DOC1105572