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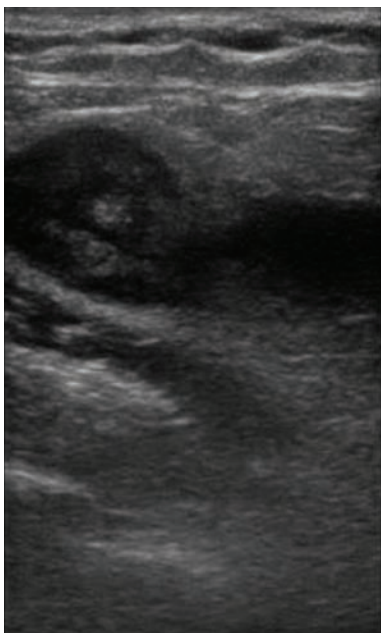
Inside

Should D-dimer be Added to Limited Ultrasounds in DVT Patients?

BY CHRISTINE BUTTS, MD

I was really spooked by a recent article in the *Journal of Emergency Medicine* reporting a missed diagnosis of deep venous thrombosis (DVT). A young, healthy patient presented to the ED complaining of unilateral leg swelling. She was evaluated on her initial visit with a radiology-performed lower extremity ultrasound, which was negative.

The patient was discharged home with instructions to have a repeat scan in seven days because she was considered high risk. The patient returned 14 days after the initial presentation with increased swelling to her calf and again had a radiology-performed lower extremity ultrasound. It was negative, and again the patient was discharged. Tragically, the patient presented to the ED a few hours later in respiratory distress and ultimately died despite attempts at resuscitation. An autopsy revealed bilateral pulmonary emboli and thrombi to the lower extremity veins.



DVT within the common femoral vein.

These types of reports can cause anxiety among emergency physicians. Lower extremity ultrasound has become the standard for evaluating patients for DVT and its limitations may not be widely known. Many EPs may not evaluate the images that are taken and may not

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Antiemetics of No Benefit for Patients Receiving Opioids

BY NATALIE MAY, MBCHB, MPHE

Perhaps it's time we admitted it: We're scared of opioids.

We once were afraid of overdosing our patients so we used to undertreat their pain. (I'm sure that still happens, but less so, I hope.)

But opioids are not risk-free drugs. If we're honest, we're probably worried about making patients' suffering worse by causing nausea and vomiting. We in the UK routinely administer antiemetics to patients receiving intravenous morphine, particularly in the prehospital environment. But does it help? And is it even necessary?

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Still Transporting on Backboards? No Evidence Supports Use

Ben Carlson/Shutterstock.com

BY RUTH SORELLE, MPH

The once-automatic use of long backboards to reduce spinal motion in patients transported by ambulance is now limited to a few patients for whom the equipment might provide some care. A statement by the National Association of

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D-dimer

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be aware of the scanning protocol of their radiology department. Does this matter?

A meticulous method of following the common femoral vein through its branches was initially used when ultrasound was first introduced as a method of evaluating for DVT. This involved serial compression to the ankle, but it was time-consuming and frequently technically difficult to perform because of difficulties in consistently being able to visualize the calf veins. When done well, whole leg compression ultrasound has excellent sensitivity in diagnosing DVT. Over time, however, lower extremity ultrasound has been scaled back for time and technical concerns, and most imaging departments do not image distal to the knee. Again, what is the significance of this to our evaluation of these patients?

A considerable amount of research exists comparing these scaled-back methods (frequently referred to as two-point or three-point compression ultrasound) with the standard whole-leg ultrasound, and most have found favorably for the limited studies.

One caveat, however: The best-powered studies added D-dimer to the limited ultrasounds. How many of us are including D-dimer in our routine evaluation of these patients?

The significance of distal DVT remains somewhat questionable. Multiple sources posit that these thrombi do not pose significant risk for future significant embolization. But it doesn't seem that we're willing to completely ignore these findings just yet because most DVT diagnosis high-risk algorithms advocate repeating the limited studies after one week to catch propagating thrombi from the calf. (See algorithm from *CMAJ* 2006;175[9]:1087 at http://bit.ly/1ME8aHB.)

No mention was made of a D-dimer in this tragic case, and I suspect that many of us don't add a D-dimer to the workup even when we are aware that the radiology-performed ultrasound is limited in scope. Would it have made a difference in this patient? Is presumptive anticoagulation the answer? What about adding CT venography to the workup of high-probability patients with negative ultrasounds? No clear answers to the dilemmas encountered in the evaluation of these patients are evident, but cases such as these certainly open up many questions. **EMN**

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