

PostScript

LETTERS

Cost effective strategy for a safe diagnosis of deep vein thrombosis at a district general hospital

We agree with the view of Walsh *et al* that it is not acceptable to miss a deep vein thrombosis (DVT) in any patient,¹ and the negative predictive value of any test (or combination of tests) must approach 100%. The authors mentioned impedance plethysmography, but did not elaborate the utility of such an investigation, yet importantly they discussed the cost issues at the end of their discussion section for a planned management of DVT at a district general hospital.

We propose that the impedance plethysmography together with pre-test probability scoring and a modern D-dimer test would be an ideal choice for a district general hospital, in order to reduce the cost of investigations for DVT, without jeopardising the safety of the patients.

Flanagan *et al* recently reported that computed strain gauge plethysmography can be used as a satisfactory first line investigation for the diagnosis of DVT, with a negative predictive value of 97%.² In a recent study a cheaper version known as digital photoplethysmography (D-PPG) has also shown a negative predictive value of 100% when used on its own.³ We believe that these techniques, together with pre-test probability scoring and a modern D-dimer test, would approach a negative predictive value of 100%, fulfilling the authors' assumption of good practice.

We carried out a trial using combined D-PPG and D-dimer testing to investigate DVT in the outpatient department and compared the results against "gold standard" ultrasonography. In a six month trial (from September 2001 to February 2002) of 134 patients we were able to pick up 18 cases of positive DVT (all Doppler positive), 77 cases of negative DVT (all Doppler negative), and 39 cases with equivocal/unable results (all Doppler negative). This confirmed that 77 cases would not have required a Doppler study, 18 cases would definitely have required a Doppler study, and 39 cases would have required further examinations. A summary of the results are shown in the table 1.

All the recent studies¹⁻⁴ have major implications for practice because they show that the combination of a low pre-test probability score, derived from a formal scoring system, and a negative D-dimer test safely excluded DVT in outpatients, obviating further investigation in 40% of patients.⁴ The very low incidence of DVT (0.6%) during follow up among those with a low pre-test probability score and negative D-dimer test is reassuring⁴ when compared with an incidence of about 1% at three months among untreated patients with suspected DVT and a negative venogram.⁵ However, the occurrence of DVT in up to 20% of patients with a high pre-test probability score and negative D-dimer test emphasises the point that the D-dimer test cannot be used in isolation.⁴

Therefore, it is possible that an objective of combining a formally derived pre-test prob-

Variable	No
Clinical	
Positive	18
Negative	116
D-dimer	
Positive	25
Negative	109
D-PPG	
Positive	18
Negative	77*
Equivocal	27*
Unable	12*
Doppler	
Positive	18
Negative	116

*Doppler negative.
D-PPG, digital photoplethysmography.

ability score, the modern D-dimer test, and either computed strain gauge plethysmography or D-PPG can safely exclude DVT in outpatients and will be the most cost effective approach at a district general hospital and should now be the initial diagnostic step.⁵

R Sinharay

Tameside General Hospital, Ashton-under-Lyne, UK; ranjitsinharay@hotmail.com

G Strang, D Bird

Royal Glamorgan Hospital, Llantrisant, Mid Glamorgan

References

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- 3 **Tan YK**, da Silva AF. Digital photoplethysmography in the diagnosis of suspected lower limb DVT: is it useful? *Eur J Vasc Endovasc Surg* 1999;**18**:71-9.
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Dorsalis pedis arterial pulse: palpation using a bony landmark

We read with interest the article by Mowlavi *et al* and agree that the palpation of pedal pulses is a useful clinical tool.¹ Therefore any attempt to standardise the technique of palpation must be applauded. Using the "navicular" method, the authors palpated 78% of pulses in a group of patients under the care of the surgical team. Unfortunately they do not describe the past medical history of this cohort. If their patients have no past medical history

of peripheral vascular disease then their method of palpation is less sensitive than previous studies which detect the pulse in 86.2%–96.9% of healthy patients.^{2,3} It would have been useful to know the proportion of arteriopathies in their study. We routinely palpate the dorsalis pedis pulse on a line joining the midpoint of the malleoli to the first webspace. Although this involves soft tissue landmarks, it is nevertheless easy to identify and palpate the pulse on this line. The navicular, in contrast, is not an easy bone to palpate, especially in the oedematous or deformed foot. While they demonstrate a new landmark to readily palpate the dorsalis pedis pulse, we do not feel that they have demonstrated any improvement in either accuracy or ease of use compared with a more traditional landmark.

J Hobson, C Bicknell, N Cheshire

St Mary's Hospital, London, UK; jchobson@doctors.org.uk

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BOOK REVIEWS

The reviewers have been asked to rate these books in terms of four items: readability, how up to date they are, accuracy and reliability, and value for money, using simple four point scales. From their opinions we have derived an overall "star" rating: * = poor, ** = reasonable, *** = good, **** = excellent.

Get through MRCP Part 1: 1000 MCQs and Best of Fives.

By Una Coales. (Pp 310; £19.95.) Royal Society of Medicine Press, 2002. ISBN 1-85315-526-8. ***

The MRCP examination is hard and daunting to get through but the better prepared the candidate then the chance of success early on in either the first or second attempt is obviously much higher. Part 1 is more difficult than part 2 because it is largely theoretically based and revision is tedious and dependent on reading books whereas the part 2, even the written paper, requires clinical knowledge and clinical skills. However, part 1 can be made much easier to prepare for if candidates base their revision around practice questions. There is no point just sitting in the library reading endless textbooks from cover to cover. The MCQ books on the market have been able to give candidates the opportunity to test their knowledge and then to "read around" the subject areas at which they do badly.

With so many books available, one might ask "why produce another?" This is a very pertinent question at the moment as the Royal College of Physicians has decided to drop MCQs from the examination. There will still be two papers, one of which will continue