PostScript

LETTERS

von Hippel-Lindau disease complicated by pheochromocytoma

We read with interest the excellent case report of von Hippel-Lindau disease complicated by pheochromocytoma.¹ However, the authors proceeded directly to imaging and radionuclide scintiscan with ¹³¹I- metaiodobenzylguanidine or preoperative localisation of pheochromocytoma, without biochemical confirmation of the diagnosis. The diagnosis of pheochromocytoma is established by demonstrating increased concentrations of catecholamines or catecholamine metabolites, typically in urine but also sometimes in plasma samples. The most reliable tests are measurements of free catecholamines, metanephrines, or vanillylmandelic acid in a 24 hour urine specimen. The last measurement is less sensitive than the other two. Diagnostic accuracy is improved by measuring at least two of the three substances.² Plasma catecholamine measurements have a sensitivity of more than 90% and a specificity of 95% for the diagnosis of pheochromocytoma.³ However, plasma normetanephrine and metanephrine estimation has been found to be a more sensitive (97% sensitivity) and specific (96% specificity) test for detection of pheochromocytoma in von Hippel-Lindau disease and multiple endocrine neoplasia type 2 compared with plasma concentrations of catecholamines (norepinephrine and epinephrine), urinary excretion of norepinephrine, epinephrine, metanephrines (normetanephrine and metanephrine combined), and vanillylmandelic acid.^{4,5} The biochemical diagnosis is also relevant for follow up for recurrence of pheochromocytoma on the same or the other side, particularly in von Hippel-Lindau disease, where multifocal disease is more common than in non-familial cases.⁶

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Troponin T elevation in lobar lung disease

Troponin T blood concentrations are raised, not only in lobar pneumonia,¹ but also in sub-massive pulmonary embolism.² I hypothesise that this phenomenon is mediated by endothelial damage in the pulmonary vasculature, which has an abundance of angiotensin converting enzyme (ACE).³ Derangements in the renin/angiotensin/aldosterone system (RAAS), in which ACE plays a pivotal part, may, in turn, affect troponin blood concentrations, given the interdependence between the RAAS and troponin release.⁴ The latter was exemplified by a study documenting the inhibition of troponin release as a result of ACE blockade in patients with acute coronary syndromes characterised by non-ST segment elevation.⁴

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Testing factual medical knowledge is inappropriate

I read with interest the article by Lewis *et al* about the effects of sleep deprivation on on-call medical staff.¹ Besides the admitted weakness of difficulty in coming up with a suitable design comparing the performance between normal and sleep deprived states, the study is contentious in at least two other aspects. Firstly, the usage of factual medical knowledge is inappropriate as a tool for the assessment of clinical performance because the delivery of clinical care involves not only correlation of complex clinical, laboratory, and radiological clues but also crucial decision making as well as interaction with patients and colleagues. Secondly, even after accepting that the factual knowledge is the most important element in clinical performance, testing one's knowledge in the multiple choice format for this purpose is questionable because at the bedside we do not have choices to choose from.

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Authors' reply

Thank you for asking us to comment on our study. We have chosen what is a simple model of assessment of medical knowledge, which is used both in medical student finals and the membership examination and hence has a long history of acceptability as an assessment tool. We fully accept that it is in no way an assessment of widespread clinical performance and indeed clinical care does involve summation of a number of issues before a clinical diagnosis can be reached. However, it is not possible to test such a complex model.

Again I would agree that the knowledge base could be considered to have a questionable purpose at the bedside but unless one has a firm knowledge base it is not possible to make any decisions.

I think the criticisms which have been raised are not specific of our study but are general criticisms of the validity of assessment of doctors.

Hyperemesis gravidarum

The contribution by Kuşcu and Koyuncu on hyperemesis gravidarum discusses various treatment options for this condition.¹ However, it totally neglects acupuncture/acupressure for which good evidence is available. A recent systematic review included seven randomised clinical trials with a total of 686 women suffering from morning sickness.² Six of these trials indicted a positive effect of acupuncture. The obvious concern of women suffering from hyperemesis gravidarum is that drugs may harm their baby. Acupuncture is a relatively safe procedure^{3,4} and its potential for this indication should not be completely ignored.

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Authors' reply

Dr Ernst points out the efficacy of acupuncture on relieving the symptoms of hyperemesis gravidarum. Acupuncture may be defined as a safe, alternative therapy, but we do not accept it as a medical treatment. When we wrote our review, we tried to focus on common problems seen in hyperemesis, and