Letters to the Editor

Atypical presentations of subarachnoid haemorrhage

Sir,

I was interested to read the report on atypical presentations of subarachnoid haemorrhage (SAH) by Johnston and Robinson.¹ The following case serves as a reminder that prominent focal neurological signs may occur in SAH, occasionally dominating the clinical picture and causing diagnostic confusion, particularly in the context of a false-negative computed tomography (CT) scan.

A previously well 51-year-old man presented with sudden onset of headache and right-sided weakness. On examination, he was aphasic with a right homonymous hemianopia and dense right-sided weakness. CT head was performed 6 hours after the onset of symptoms and was normal. The possibility of SAH was considered but was felt to be unlikely given the prominent focal signs, absence of nuchal rigidity and vomiting, and normal CT (which has a 95% sensitivity for the diagnosis of SAH within the first 24 hours²). Early middle cerebral artery infarction was felt to be more likely, particularly as routine tests confirmed the presence of diabetes and hypertension. A decision was taken to treat supportively and repeat the CT in 2-3 days to confirm the presence of ischaemic stroke.

The following day, the headache and focal signs had resolved. The patient was alert but mildly confused. Shortly after, he became comatose. Repeat CT remained normal. Lumbar puncture revealed uniformly blood-stained cerebrospinal fluid with xanthochromia, confirming the diagnosis of SAH.

Although the majority of patients with SAH present in a classical manner with sudden onset of severe headache,³ atypical presentations occur and may cause diagnostic confusion, particularly if the CT scan is unremarkable. Indeed, misdiagnosis is common even when presentation is typical: in one recent series of 136 cases of SAH with a classical presentation referred to a neurosurgical centre, the diagnosis was initially missed by general practitioners and hospital physicians in around half of cases, leading to a significantly worse outcome in these patients.²

Clinical differentiation of SAH from ischaemic stroke may occasionally be difficult: headache may be a prominent feature in ischaemic stroke or transient ischaemic attack, occurring in 17% of patients with middle cerebral artery territory infarction.³ Similarly, focal neurological signs occur in around 20% of patients with SAH.⁴

The possibility of SAH should always be considered in patients presenting with focal neurological signs and headache, with a low threshold for lumbar puncture where CT scanning is non-diagnostic.

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Accepted 14 January 1999

- 1 Johnston SD, Robinson TJ. Subarachnoid haemorrhage: difficulties in diagnosis and treatment. *Postgrad Med J* 1998;74:743-8.
- 2 Neil-Dwyer G, Lang D. 'Brain attack'—aneurysmal subarachnoid haemorrhage: death due to delayed diagnosis. *J R Coll Physicians* 1997;31:49-52.

- 3 Kawamura J, Meyer JS. Headaches due to cerebrovascular disease. *Med Clin North Am* 1991;75:617-30.
- 4 Linn FH, Wijdicks EF, van der Graaf Y. Prospective study of sentinel headache in aneurysmal subarachnoid haemorrhage. *Lancet* 1994;344:590-3.

This letter was shown to the authors of reference 1 who responded as follows:

Sir,

In reply to the letter by Dr Kelly, it is apparent that SAH can occur in the presence of prominent focal neurological signs. Indeed the diagnosis may be delayed due to the perceived low probability of SAH or due to a reluctance to perform lumbar puncture in the presence of a focal neurological deficit. While the presence of focal neurological signs is more suggestive of ischaemic/haemorrhagic stroke than SAH,¹ the presence of a focal neurological deficit is not an adverse prognostic factor in SAH.² Recurrent transient focal neurologic deficits have been described in a patient 13 days after a SAH. At that time, multiple cerebral infarcts were demonstrated by CT brain scan and the patient was anticoagulated with heparin without any adverse consequences.³

I agree with Dr Kelly that SAH should be considered as a diagnosis in any patient presenting with a focal neurological deficit and a normal CT brain scan.

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Accepted 1 February 1999

- 1 Hirai S, Ono J, Yamaura A. Clinical grading and outcome after early surgery in aneurysmal subarachnoid haemorrhage. *Neurosurgery* 1996;39:441-6.
- 2 Talavera JO, Wachter NH, Laredo F, et al. Predictive value of signs and symptoms in the diagnosis of subarachnoid haemorrhage among stroke patients. *Arch Med Res* 1996;27:353-7.
- 3 Wang DZ, Futrell N, Taylor C, Millikan C. Anticoagulation for prevention of cerebral infarcts following subarachnoid haemorrhage. *Surg Neurol* 1995;44:270-4.

The use of statins following AMI

Sir,

The recent audit reported by Khong *et al*¹ demonstrated the under-use of HMG Co-A reductase inhibitors (statins) in patients following myocardial infarction. Essentially, it highlighted major deficiencies in care on the basis of recent evidence, thus identifying a therapeutic void in the management of these patients. These findings are not confined to the use of statins in the post-myocardial infarction setting and the epidemic of under-treatment of chronic heart failure with angiotensin-converting enzyme (ACE) inhibitors by both hospital-based and primary care physicians is worthy of consideration. In heart failure these drugs prolong life, improve symptoms, and reduce the frequency of hospital admission, with economic analyses suggesting that they are among the more cost-effective therapies in cardiovascular medicine. On the basis of a number of large randomised controlled trials it would seem, therefore, that the evidence for their use is overwhelming. However, they are grossly

under-prescribed and the dose frequently not up-titrated. Recently, the appropriateness of the policy of increasing dosage to the therapeutic levels identified by the major clinical trials has been questioned, but ACE inhibitor therapy is not instituted at all in half the post-infarction patients who are deemed to require it.² Community-based studies have shown even poorer rates of prescription³ and this is likely to reflect the difficulty in the recognition of heart failure on clinical grounds alone, as well as anxieties by physicians about adverse effects.

The authors suggest the implementation of departmental protocols to aid the appropriate use of statins on the coronary care unit and the consideration of the use of an ACE inhibitor should be an integral part of such protocols. The recognised deficiencies in the management of heart failure patients in the community have led to the introduction of programmes such as open access echocardiography⁴ and specialist heart failure clinics.⁵ Despite the provision of services such as these, improvement in patient care can only be achieved if the importance of new developments in therapy for common diseases is fully appreciated by physicians. The responsibility of keeping abreast of the current evidence regarding benefits of specific treatments must ultimately rest with the individual physician and in this respect continuing medical education has an important role to play in helping to ensure that patient care is based on such evidence.

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Accepted 17 December 1998

- 1 Khong TK, Missouris CG, Murda'h M, MacGregor GA. The use of HMG Co-A reductase inhibitors following acute myocardial infarction in hospital practice. *Postgrad Med J* 1998;74:600-1.
- 2 Sapsford RJ, Hall AS, Robinson MB. Evaluation of angiotensin converting enzyme inhibitor dosage and prescription rates in post-myocardial infarction patients (Abstract). *Eur Heart J* 1996;17:62.
- 3 Houghton AR, Cowley AJ. The use of angiotensin converting enzyme inhibitors in heart failure by general practitioners: results of a postal survey (abstract). *Eur Heart J* 1996;17:61.
- 4 Francis CM, Caruana L, Kearney P, et al. Open access echocardiography in management of heart failure in the community. *BMJ* 1995;310:634-6.
- 5 Hanumathu S, Butler J, Chomsky D, Davis S, Wilson JR. Effect of a heart failure programme on hospitalisation frequency and exercise tolerance. *Circulation* 1997;96:2842-8.

This letter was shown to the authors of reference 1 who responded as follows:

Sir,

We read with interest the comments of Dr Burgess and agree with his observations that the under-prescription of cost-effective therapy is not confined to the use of statins in post-infarct patients. Indeed, there is reason to believe that there is much potential for improvement in overall management of prevention of secondary coronary disease.¹ The aim of our survey was to highlight the opportunity for increased use of lipid-lowering therapy in patients surviving an acute myocardial infarction. In this respect,

we can only emphasise the findings that lipid-lowering therapy was used in only a small proportion of such patients admitted to our cardiac care unit (CCU) in 1996.

The delay and discrepancy between evidence and clinical practice is not a new finding but is clearly a complex issue and not restricted to cardiovascular medicine. We did not investigate in depth the causes for this in our case. However, we suggested that incorporating the prescription of lipid-lowering therapy into the CCU protocol may help to address some of the shortfall in their use. This was based, in part, on the possibility that

the encouraging observation that cholesterol levels were checked in 89% of subjects may have been attributable to the CCU protocol, and in part, on the favourable side-effect and safety profile of statins.² In an attempt to complete the audit cycle, we have instituted changes to the CCU protocol whereby all patients with a cholesterol level greater than 4.5 mmol/l are started on a statin unless contra-indicated. Initial reports show that prescription rates for statins have improved and we aim to complete this study in the near future.

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- 1 ASPIRE Steering Group. A British Cardiac Society survey of the potential for secondary prevention of coronary disease: ASPIRE (Action on Secondary Prevention through Intervention to Reduce Events). *Heart* 1996;75:334-42.
- 2 Pedern TR, Berg K, Cook TJ, et al. Safety and tolerability of cholesterol lowering with simvastatin during 5 years in the Scandinavian Simvastatin Survival Trial. *Arch Intern Med* 1996;156:2085-92.

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

The spine and medical negligence, RW Porter, pp 200. BIOS Scientific Publishers, 1998. £19.95, paperback. ★★

It is a brave author who attempts to cover the major clinical aspects of spinal surgery and the litigation relating to it in one slim volume. It is a heroic author who tries to do this in a style that will appeal to both the doctor and the lawyer. Legal sections are to be found at the beginning and end of this book, with two excellent chapters on 'Why do patients sue their surgeons' and 'Risk management'. The middle section contains clinical chapters written in an authoritative style with helpful illustrations. Throughout the book, case histories help to illustrate management pitfalls. However, I found the analysis of the legal issues rather simplistic, and others may be left dissatisfied. Porter has a tendency to rely on the phrase 'informed consent' which is at best misleading and at worst a misnomer; valid consent is informed, informed consent is not necessarily valid. Although the author admits that the clinical information may be superficial for the specialist, I fear it may be too deep for the lawyer. As a handbook on legal medicine it lacks both depth and a target audience, but as a guide to ethical practice, or as a quick revision of spinal problems, this book is well worth the read.

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Managing multi-disciplinary teams in the NHS, Paul Gorman, pp 171. Kogan Page, 1988. £15.99, paperback. ★★★

Fifty years ago, the medical professorial ward round of a London teaching hospital was multidisciplinary, involving nurses, dieticians, physiotherapists, pharmacists and doctors. Next door the professorial surgical round most certainly was not. Ten years later in general practice, single authority persisted, each professional working within a personal agenda, selectively transferring responsibility but not power. Over the years, both geographical and specialist boundary-crossing teams, with each professional contributing a part to the whole decision-making process, have of necessity evolved rapidly, but not painlessly.

This valuable little book has 11 chapters devoted to NHS team working, and is written by an independent specialist in professional partnerships. Multidisciplinary working in

the NHS, building teams, leadership, managing teams, communication, cultures, networks and team development are all addressed in easily understood, reasoned sections, each with an introduction to the scope of the topic, analysis, advice, guidance and conclusion. Dysfunctional teams are well analysed and 'difficult people' within teams are described with considerable feeling.

I found the book easy to read and understand, reassuringly non-didactic, and thoughtful. From the 11 languages of the various health and social service professionals involved in patient care can come forth a harmonised decision-making voice; this is more likely if all the team realises that management is rarely, if ever, about making clear-cut decisions on firm evidence.

In recommending this book to all those working in teams within the NHS (and all postgraduate centre librarians) and without detracting from its usefulness, I must add that I found several of the quotation/examples banal and for me, with the possible exception of 5.1, none of the figures added anything to the text except space between words. Perhaps this was intentional.

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Understanding health economics, Paul R McCrone, pp 136. Kogan Page, 1998. £15.99, paperback. ★★★★★

This book provides an introduction to and overview of health economics that will be of interest to medical, nursing and managerial staff. The first chapter defines economics and its relevance to the National Health Service as well as what is meant by cost to different groups. The subsequent chapters explain basic general economic terms and principles, how health outcomes can be monitored and the models for evaluating the costs of health-care. Topics included in these sections are QALYs, cost-effectiveness models and cost-utility analysis. Later chapters deal with evidence-based medicine and randomised controlled trials and the concept of prioritising. The final section gives a stepwise guide to the practicalities of assessing evidence and how to conduct an economic evaluation.

This book is well written, easy to follow and enjoyable to read. It will be ideal for health and managerial professionals who have no or little previous experience of health eco-

nomics. Its strengths are that it concentrates on basic principles and defines all relevant new terms. The understanding of new concepts is facilitated by the text containing many clinical examples and case studies. Other advantages include a comprehensive bibliography and list of abbreviations. I would strongly recommend this text to those wishing to seek an introduction and overview of health economics.

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Radiology for MRCP, Sarah Howling, Paul Jenkins, pp xxii + 210. PASTEST, Cheshire, 1998. £13.75, paperback. ★★★★★

I welcome any book on radiology that aims to help candidates preparing for MRCP examination, and the authors of the above book have really worked hard to achieve this goal. The first section is devoted to guiding people through different imaging modalities, eg, magnetic resonance imaging (MRI), barium examinations, etc. The normal films are fully explained before the pathological ones are dealt with, which is a very sensible approach, especially when you are trying to interpret MRI and computed tomography scans.

The figures are of high quality, and the cases discussed cover almost all medical specialties. The explanations are well written and are followed by wide differential diagnoses. Many sections of medicine are well illustrated, but my favourite section is rheumatology. The X-rays of bones and joints are of the right penetration and the text is very detailed. I have always found barium X-rays rather difficult to interpret, but the films here are of high quality and leave little room for ambiguity.

This book is the work of both a radiologist and a clinician and thus enjoys the best of both worlds. Even those with membership will thoroughly enjoy it, and it will help them to update their knowledge of radiology. I strongly recommend this book for anybody sitting for or contemplating the MRCP exam. It is also a pleasant surprise that it is priced at only £13.75. Pastest has done a great service for postgraduate education yet again.

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