concerned, particularly those poor human beings around whom the all too often protracted, frustrating and bewildering medico-legal process presently revolves.

R A WARREN 152 Harley Street London W1N 1HH

Another look at holistic medicine

I appear to have inadvertently trodden on an holistic toe (May 1992 *JRSM*, p 307). Of course, the late Lord Horder was quite right in his quoted teaching, but was he not referring to medical practice as a whole? And I fail to see the relevance of General Smuts to this question, philosopher or no.

Taking issue with me regarding the unpredictability of outcome in most musculoskeletal therapies, Dr Bourne says, '. . . most of the thirty therapies in Dr Paterson's *trial* (my italics) gave results that were not much better than the 33% expected from placebos.' While 20 years ago I did conduct a trial on well over 1000 patients, this was for a number of reasons not statistically significant, which was why it was NOT included among the 1000 or more references to the textbook I DID quote[1], and why I did NOT quote my early trial in the previous correspondence; so how he justifies his comment on my results escapes me.

Prediction of outcome of any therapy is more likely to prove accurate if it is, (in part) based on the independently confirmed experience of many observers, rather than on that of few. Of course, we welcome contrary evidence which is valid and of relevance, as this is the very stuff of scientific advance, but meanwhile prediction in this field remains a 'high-risk' exercise, to be undertaken only by the intrepid.

J K PATERSON L'Ilot, Les Fitayes, 13640 La Roque d'Anthéron, France

Reference

1 Burn L, Paterson JK. *Musculoskeletal medicine, the spine.* London: Kluwer Academic, 1990

The plague of Athens

Dr J M H Hopper (June 1992 *JRSM*, p 350) suggests a possible solution to one of medical history's greatest puzzles. Of all the diseases proposed so far as likely causes for the Plague of Athens - bubonic plague, ergotism, measles, smallpox, typhus, dengue[1], scarlet fever[2], meningococcal disease, influenza[3], Marburg and Ebola fevers[4], and toxic shock syndrome[5] - none has been exact enough match for unequivocal acceptance. Hopper has made a good case for Lassa fever, but the case for epidemic inhalation anthrax is as strong, if not stronger.

Anthrax appears in chapter 9 of Exodus as the 5th and 6th plagues of Egypt, and in Virgil's 3rd Georgic as the murrain of Noricum[6]. Inhalation anthrax has an incubation period of between one and 5 days, presents initially as a febrile illness with influenza-type symptoms, and then progresses rapidly to respiratory distress and circulatory collapse as secondary pneumonia, septicaemia, and seeding to meninges, spleen and bowel occur[7].

Precise diagnosis of the Plague of Athens is likely to remain an elusive chimera, never to be realized, its search a self-indulgent parlour game for classical scholars and medical historians alike. It was an extraordinary event and its understanding must surely require some stretching of our collective imagination if we are to explain it in present day terms. Its cause may have been the product of a random mutation rendered extinct by its own virulence, or some special population characteristic may have made the Athenians vulnerable to an atypical form of a disease still with us today.

JAMES MCSHERRY Professor of Family Medicine and of Psychology

ROSS KILPATRICK Professor of Classics Queen's University, Kingston, Canada K7L 3N6

References

1 Longrigg J. The great plague of Athens. *Hist Sci* 1980;xviii:209-25
2 Shrewsbury JFD. The plague of Athens. *Bull Hist Med* 1950;24:10-25
3 Kobert R. Ueber die Pest des Thucydides. *Janus* 1899; 4:240-51, 289-99
4 Scarrow GD. The Athenian plague: a possible diagnosis. *Anc Hist Bull* 1988;2(1):4-7
5 Langmuir AD, Worthen TD, Solomon J, Ray CG, Petersen E. The Thucydides syndrome: a new hypothesis for the cause of the plague of Athens. *N Engl J Med* 1985; 313:1027-30
6 Christie AB. The clinical aspects of anthrax. *Postgrad Med J* 1973;49:565-70
7 Tuazon CU. Gram-positive pneumonias. *Med Clin N Am* 1980;64:343-61

The importance of combining xylene clearance and immunohistochemistry in the accurate staging of colorectal carcinoma

We read Haboubi *et al.*'s article with interest (July 1992 *JRSM*, p 386) but feel that their review of the literature has been less than complete. In 1989 we described[1] the technique of initial dissection after fixation and histological examination of the examined nodes; we then followed this with fat clearance and further dissection of the mesocolon. We showed that not only was there a greater harvest of nodes but five patients out of 58 initially reported as being of Dukes B status were in fact Dukes C that is 8.6% were under reported. We have now followed these patients for 5 years and 4 of these 5 patients have died of carcinomatosis (report in preparation).

R GRACE The Royal Hospital
K E M SCOTT Wolverhampton WV2 1BT

Reference

1 Scott KWM, Grace RH. Detection of lymph node metastases in colorectal carcinoma before and after fat clearance. *Br J Surg* 1989;76:1165-7

Pathogenesis of multiple sclerosis: a blood-brain barrier disease

Professor Hughes in his editorial (July 1992 *JRSM*, p 373) states that it is difficult to determine whether the earliest event in multiple sclerosis (MS) is damage to myelin or vascular inflammation, despite acknowledging that vascular lesions occur in the brain outside areas of demyelination and in the retina, where there is no myelin. This proves that the blood-brain barrier disturbance in MS is primary. MRI with gadolinium DTPA has shown that disturbance can precede the demyelination by several days or weeks[1]. Following blood-brain barrier damage demyelination

can take place due to the activation of complement in the absence of antigen[2]. However in order to account for the barrier damage immunologists are now proposing that a variety of antigens are involved in MS. A recently stated preference was for an unknown CNS antigen to escape through the cribriform plate into the nose and thence to the cervical lymph nodes to sensitise lymphocytes. It is then postulated that these lymphocytes enter the blood to be carried to the CNS, programmed to attack the blood-brain barrier at specific sites and then myelin[3].

Not surprisingly, Hughes feels that 'the solution (to MS) lies not in some undiscovered infectious agent or immunobiological property of oligodendrocytes and CNS myelin, but in a reinterpretation of data already largely discovered'. There is a proven mechanism that reproduces the blood-brain barrier damage and demyelination of multiple sclerosis in Man, that is microembolism[4]. Acceptance of the vascular basis of the disease must cause a reassessment of therapy. Proton magnetic resonance spectroscopy has demonstrated a lactate peak in acute lesions[5]. This is due to hypoxia which can only be relieved by oxygen. To be fully effective this must be given under hyperbaric conditions[6].

P B JAMES

Wolfson Institute of Occupational Health
Ninewells Hospital and Medical School
Dundee DD1 9SY

References

1 Miller DH, Rudge P, Johnson G, *et al.* Serial gadolinium-enhanced magnetic resonance scans in patients with early relapsing-remitting multiple sclerosis: implications for clinical trials and natural history. *Ann Neurol* 1991; **29**:548-55
2 Compston DAS. The dissemination of multiple sclerosis. *J R Coll Phys* 1990;**24**:207-18
3 Hughes RAC. Immunological mechanisms in demyelination. *J R Soc Med* 1992;**85**:53-7
4 James PB. Evidence for subacute fat embolism as the cause of multiple sclerosis. *Lancet* 1987;i:380-6
5 Miller DH, Austin SJ, Connelly A, *et al.* Proton magnetic resonance spectroscopy of an acute and chronic lesion in multiple sclerosis. *Lancet* 1991;**337**:58-9
6 James PB. The scientific basis for hyperbaric oxygen therapy in focal oedema. In: Clifford Rose F, Jones R, eds. *Multiple sclerosis: immunological, diagnostic and therapeutic aspects.* London: John Libbey, 1987:223-7

Percutaneous endoscopic gastrostomies

The report by Moran *et al.*[1] (June 1992 *JRSM*, p 320) on percutaneous endoscopic gastrostomies neglected to discuss the clinical role of percutaneous radiologic gastrostomies as an alternative to surgical gastrostomies[1]. Radiologically placed percutaneous gastrostomies offer several advantages over percutaneous endoscopic gastrostomy.

(1) The transverse colon is specifically identified during radiologically-guided gastrostomy. Gastrocolic fistula is a well-recognized complication of percutaneous endoscopic gastrostomies but has not been reported for percutaneous radiologic gastrostomies.
(2) Gastropexy can be incorporated into the percutaneous radiological gastrostomy procedure[2]. This will prevent leakage of gastric contents into the peritoneal cavity. Furthermore gastropexy will also allow reinsertion of a dislodged catheter without image guidance.
(3) Radiological gastrostomies require only small bore nasogastric tubes for gastric insufflation and hence can be placed in patients with severe narrowing of the oesophagus. In patients with complete oesophageal obstruction gastric insufflation can be achieved by a 18 g catheter placed percutaneously under CT guidance into the gastric fundus.
(4) If clinically indicated catheter-tips can be placed in the proximal jejunum (for example in patients with severe gastro-oesophageal reflux). This has been shown to be of particular benefit in patients with malignant bowel obstruction in whom the gastrostomy is placed for relief from vomiting.

Extensive experience in North America suggests that the radiological approach is as safe if not safer than the endoscopic approach[1]. It requires rudimentary radiologic equipment and hence can be readily adapted by developing countries, and is suitable for inpatients and outpatients.

S SAINI

Department of Radiology
Division of Gastrointestinal Radiology
Massachusetts General Hospital
Boston, MA 02114, USA

References

1 Ho CS, Yeung EY. Percutaneous gastrostomy and transgastric jejunostomy. *AJR* 1992;**158**:251-8
2 Brown AS, Mueller PR, Ferrucci JT Jr. Controlled percutaneous gastrostomy: nylon T-fastener for fixation of the anterior gastric wall. *Radiology* 1986;**158**:543-5

Gaucher's disease

Your article on Gaucher's disease (June 1992 *JRSM*, p 359) highlights the need for clinical awareness of this inherited enzyme deficiency condition. With many patients (even those of Jewish Ashkenazi descent), there is no family history to help diagnosis. There are estimated to be between 200 and 300 Type 1 sufferers in the UK. Our Association was formed a year ago and we know of 80. Only approximately 50% are Jewish.

Even today, Gaucher's patients are being misdiagnosed. Many are told they have leukaemia. One patient was advised 'there are only four cases in the whole country', and another that 'she should not be alive, the disease is a killer'. Symptoms varying from blood disorders, spleen and liver enlargement to bone pain and deterioration are dealt with in different medical departments which can make diagnosis more difficult.

We supply information packs to doctors and their patients on the disease and the new treatment. If you would like to receive one, please write to the address below.

S LEWIS

Secretary, Gaucher's Association
25 West Cottages
London NW6 1RJ