DIABETES NEPHROPATHY

Sir, In the article entitled *Diabetes Nephropathy*,[1] under the subheading of ACE inhibitor in nephropathy, the recommended drug is Ramipril.

What I would like to know is that, as Ramipril is very expensive in Pakistan, could the other less expensive drugs like Enalapril etc. be considered equally effective?

M.A. AKHTAR

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REPLY

Your letter raises an important question that is still being debated. There is evidence that different ACE inhibitors and now also Angiotensin II receptor antagonists have beneficial effects in diabetic patients. However, there are no trials directly comparing the magnitude of benefit of these drugs in the same population. We therefore do not know whether Enalapril is equally as effective as Ramapril but we believe that all ACE inhibitors are beneficial in this group of patients. The choice of drug is often determined by availability, cost and side-effect profile. We think it is important to consider the early introduction of ACE inhibitors in diabetic patients, rather than recommend a specific drug.

C. STIRLING and C. ISLES

THE LAZARUS PHENOMENON

Sir, We read this article with great interest.[1] The authors rightly pointed out that the name of Lazarus has been used in different clinical and non-clinical contexts. To our knowledge, the term 'Lazarus complex', when used specifically to describe the psychological experiences of cardiac arrest survivors, is synonymous with the more familiar terms 'Near-death experience',[2–5] 'Near-death syndrome',[6] or 'Lazarus syndrome'.[6,7] In the paediatric palliative care setting, the same term 'Lazarus syndrome' is said to occur 'when the child is expected to die, the child's family members have worked through their anticipatory grief and consider themselves fully prepared for the child's death, and the child then goes into remission'.[8] We agree with the authors' strict usage of 'Lazarus phenomenon' (LP) as a term to describe the delayed 'return of spontaneous circulation' (ROSC) after cessation of cardio-pulmonary resuscitation.[1] However, LP has been used casually in other contexts, e.g. in an editorial to describe an unusual delay in the publication of a journal issue![9]

A non-biblical variant of LP is the state of a zombie,[6] related to the Haitian religion, vodoun or voodoo,[6,10] and ancient Chinese folklore. The authors illustrated two examples of LP in the Old Testament, but none (other than that of Lazarus) in the New Testament. The New Testament tells us that life was also restored to the daughter of Jairus,[6,11] and to the only son of the widow of Nain.[6,11] Peter and Paul also miraculously restored life to Tabitha (Dorcas)[6,11] and Eutychus,[6,12] respectively. Perhaps the greatest example of LP in history is the death[13] and resurrection of Jesus Christ[6,11] Himself.

J.K.T. NGEH and V.K.L. TOH

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DELIVERY OF CARE FOR COMMON ENDOCRINE SYNDROMES: THYROID DISEASE[1]

Sir, In preference to the use of the prefix 'subclinical' to characterise patients in whom subnormal levels of thyroid stimulating hormone (TSH) coexist with normal values for free thyroxine (FT4) and free triiodothyronine (FT3), such patients would be better described as having 'dysregulatory' thyrotoxicosis. This would convey the concept of dysregulation of the set-point of the hypothalamic-pituitary-thyroid axis as the fundamental disorder, in those who are truly devoid of clinical stigmata,[3] and also in those who have clinical manifestations such as atrial fibrillation, heart failure and embolic stroke.[4]

Set-point dysregulation, with consequent uncoupling of feedback status, is a concept with which clinicians are already at ease. In disorders such as primary hyperparathyroidism, similar degrees of hypercalcaemia can coexist with a wide spectrum of parathyroid hormone (PTH) levels, some of which fall within the 'normal' range;[5, 6] in some of these patients, primary hyperparathyroidism is truly subclinical, but in others, clinical manifestations such as calculous urinary tract disease, coexist with normal PTH levels.[6] By the same token, the fact that features of a hyperadrenergic state can be elicited, not only in classical hyperthyroidism,[7] but also in its 'subclinical counterpart,[3, 8] can be interpreted as signifying that, in the latter context, there is a degree of uncoupling of the relationship between thyroid hormone levels and beta adrenergic responsiveness, especially in view of the resolution of some of these features after normalisation of TSH levels.[3] The dysregulatory state can be said to have two components, the first of which relies on the hypothesis that 'feedback inhibition of thyroid hormones may occur at different serum levels of T4 and T3 in different patients and may occur with minimal changes in concentrations of T4 and T3 in any one patient.'[9] The corollary is the postulate, by Faber and his colleagues; in paraphrase this suggests that, in the final analysis, what the cardiovascular system senses as hyperthyroidism at a tissue level is what defines a patient as being thyrotoxic, regardless of the blood levels of thyroid hormones.[3] The concept of potential discordance between the conventional 'normal' range and what is sensed as abnormal at tissue level resonates with the haematological experience of the occurence of vitamin B12 deficiency at a tissue level despite normal blood levels of this vitamin.[10]

O.M.P. JOLOBE

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RESEARCH TRAINING FOR THE YOUNG CLINICIAN

Sir, This useful article does not mention the role of research training at undergraduate level. For some years the University of Edinburgh has offered an intercalated Honours Degree of a B.Sc. Standard. This is (or was) centred on the basic science departments of Anatomy, Physiology, Biochemistry, Bacteriology, Pharmacology and Pathology.

These courses, although discipline-centred, were wide ranging and liberal in outlook. For example the class in pathology made visits to research centres where they were exposed to the objectives and research methods used. Three or four days in genetics showed the wonder of chromosomes and genes, whose pathological aspects were concisely revealed by time spent in demonstrations of fetal pathology. Visits were made to clinical units engaged in the cutting edge of renal and cardiovascular disease. Practical work included a spell in electron microscopy, the usefulness of histochemistry (in both research and diagnosis), tissue culture techniques which opened the world of interaction between virus and cell, and so on. These students became an integral part of the departments, taking part in meetings and informal coffee breaks where discussion flourished. In addition, they were instructed in how to use the medical literature and prepare a thesis for examination. No attempt was made to indoctrinate towards the department although by osmosis they appreciated the role of biopsy and histopathology in the diagnosis of disease.

Some entered practice, others became consultants in medicine or surgery. It is noteworthy that my memory of one of my last classes includes two undergraduates one of whom became a Harley Street consultant and was appointed Director of Medicine at a London hospital, the other President of a Royal College of Physicians. Neither appear to have come to harm from the experience.

The merit of these courses is their short duration, sufficient to dip feet in the water without making a long commitment. The disadvantage was and probably still is expense. Only a medical school with well-resourced basic science departments can sustain these courses. Lastly, one should emphasise that research of value is not restricted to sophisticated specialties. General practice also offers many opportunities; one has only to think of distinguished work carried out in the Borders on the

epidemiology of infective hepatitis.

A. STUART

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STATUS OF BLOOD GLUCOSE METER

Sir, This is in reference to the Diabetes Mini Series,[1] where it is mentioned that 'A reading from a glucose meter is not accurate enough for this purpose [diagnosis], and a specimen sent to a biochemistry laboratory is mandatory.'[2] Whereas in the management section[3] it is mentioned to demonstrate the use of a blood glucose meter to the patients. My question is: Why use a blood glucose meter when it gives inaccurate readings, and hence, should we discard blood glucose meters?

K.P. DUBEY

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REPLY

The answer is quite simple. There is variation in the meter, so a reading of 6·5 on a meter when repeated could be 7·5 (in fact the variation is much higher). If the first reading were taken it would mean no diabetes, if the second a diagnosis of diabetes would be made. There is much less variation with a biochemistry sample. Secondly, the variation with a meter can increase if the technique is not properly adhered to. From a patient monitoring perspective 6·5 and 7·5 indicate reasonable control of diabetes, and in any case would be used alongside a HbA_{1c} reading. There is an extensive literature on the diagnosis of diabetes, and on the use of meters. The bottom line is that the diagnosis rests on one or two readings only, whereas assessment of control is a continuous and ongoing thing.

M. FISHER

A WEEK IN THE WORK OF A TUBERCULOSIS SPECIALIST AT AMRITSAR, PUNJAB

Sir, The author studied at Cardiff (Wales) for one year in 1953–4 and later at Edinburgh during 1954–5. He passed the MRCP exam on 13 January 1956 (in the first attempt) and sailed for home on 2 March 1956.

Since then till now he has been engaged in treating tuberculosis (TB). Before proceeding to the UK he worked in a TB sanatorium near Simla – the summer capital of the British viceroys in those days. Though limited quantities of Streptomycin, PAS and Isoniazid had become available, the results were not very satisfactory. About half the patients died. Additional therapy was artificial pneumothorax, pneumoperitoneum and thoracoplasty. It had been then advised by the Tuberculosis Association of India to restrict and reserve the use of streptomycin to one gram daily – not exceeding 15 days during stage one of thoracoplasty.

While the Medical Research Council (MRC) trials went on the author studied them very carefully and became convinced that chemotherapy was the answer. He left his post at the Thoracic Surgical Centre, Liverpool and went to work with Professor John Crofton (later Sir) at the City Hospital.

Dr Bhatia learnt all he could at the Royal Infirmary under great teachers like Sir Stanley Davidson and Derrick Dunlop. He is grateful to the Edinburgh Medical School for making him a good clinician. He was conferred Fellowship in 1969. He was appointed professor of Tuberculosis at the Amritsar Medical College and advisor in tuberculosis to the Government of Punjab. Thousands of patients have been cured by him and his students (who after graduation in tuberculosis are working in Northern India). Now, even more potent drugs like Pyrazinamide, Rifampicin and Ofloxacin are also available. The duration of chemotherapy has been reduced from the two years in the 1950s and 60s. The cost in India is about £50 for a cure. Most patients are able to afford it. Some poor patients can be supplied free drugs. Provided the physician and all concerned take a deep personal interest, failures can still be avoided. Still, there are many multiple drug resistance (MDR) patients because treatment was not received from the outset. Then nothing can be done in India (for all practical purposes). The last line drugs are very expensive and weak, and thoracic surgery is not available. In a week's work Dr Bhatia diagnoses about ten new patients and about two MDR patients.

Diabetes is a common disease and if unknown or uncontrolled can lead to acute pulmonary tuberculosis quickly. Alcoholism is common and is usually at the cost of nourishing food. Smoking and chewing tobacco are very common.

Though the author has been doing his best since 1951 till now, his contribution is like a drop in the ocean. It is unlikely that India can achieve the happy situation which Professor Crofton achieved in Scotland.

J.L. BHATIA