Regional conference in Birmingham

This report is based on the regional conference held at the Queen Elizabeth Postgraduate Medical Centre in September 1993. The conference attracted about 140 participants and was a great success. The programme had been specifically designed to update physicians in areas of medicine where there had been significant management changes. Topics discussed ranged across a broad spectrum of specialties and were presented by a mixture of experts both local and national.

Lipids

Professor L E Ramsay (University of Sheffield) reminded us of the major risk factors for coronary artery disease and their factorial relationship. There seems little doubt that the majority of middle aged and older people in the UK would benefit from reductions in plasma cholesterol to around 5.2 mmol/l or less—a fall in cholesterol of 20% leading to an expected reduction in the incidence of coronary artery disease of approximately 40%. Could dietary modification alone bring about reductions of this magnitude in the general population?

After extensively reviewing all randomised controlled trials of cholesterol lowering diets lasting at least six months, Professor Ramsay concluded that diet was not the answer. Modest reductions in cholesterol of only about 2% had been achieved, insufficient to make any striking impact upon the incidence of coronary artery disease, or that required to meet Health of the Nation targets.

Should we consider putting most of the adult population on lipid lowering drugs? Again the answer was no, not yet. Randomised trials of lipid lowering drugs had produced only small reductions in coronary artery disease but had been associated with an appreciable increase in deaths from other causes. Whether the newer lipid lowering agents now available would have a similar adverse effect is not yet established. We were advised to await the outcome of yet more trials currently in progress.

For the present, Professor Ramsay recommended treating people known to be at high risk but could not recommend mass screening for plasma cholesterol levels because the treatments currently available are either ineffective or potentially dangerous. He urged those intent on issuing guidelines on the management of hypercholesterolaemia in the general population to heed his prudent advice.

Osteoporosis

Dr C Cooper (University of Southampton) showed that osteoporosis is a disorder for which a screening programme should be seriously considered. It is an important, major health problem; for women, the lifetime risks of sustaining an osteoporotic fracture of the hip, forearm or vertebra are 20%, 16% and 16% respectively. Furthermore, bone densitometry, although not yet widely available, provides a safe and acceptable screening tool. Effective intervention is available for women in the form of HRT (hormone replacement therapy).

As always, any benefit is obtained at some cost, both medical (an increased risk of endometrial and possibly breast carcinoma) and financial. Discussion at the conference centred around the cost/benefit ratio of this strategy and ended with the conclusion that mass screening could not yet be justified, although screening those at high risk did seem worthwhile. Not surprisingly, this stimulated yet more debate during which the importance of preventing falls in the elderly was justly emphasised. Dr Cooper took up this theme and explained how a simple device such as a padded hip protector could appreciably reduce the incidence of hip fracture in frail elderly people at high risk of falling.

Secondary prevention of stroke

Professor C P Warlow (University of Edinburgh) reviewed the value of anti-platelet drugs (aspirin being the cheapest) in reducing the risk of a further stroke by around 25% in patients who had already experienced a mild stroke or transient ischaemic attack (TIA). He recommended a dose of 75–150 mg of aspirin for this purpose. Should cerebral haemorrhage be excluded by CT scan before commencing aspirin therapy for secondary prevention? We were told that 90% of us would wish to have a scan but that only 50% of our patients obtained one.

Professor Warlow confirmed the benefits of carotid endarterectomy for patients with a TIA and significant

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carotid stenosis, but stressed the need to diminish the risk of incurring an early stroke during angiography and surgery. He further emphasised that these secondary preventive strategies, whilst of great importance to the individuals concerned, would not measurably reduce the overall incidence of stroke in the community. If the Health of the Nation target of a 40% reduction in deaths from coronary heart disease and stroke is to be achieved, wider strategies are needed to reduce the risk profile of the entire population.

Guillain-Barré syndrome

Dr J B Winer (University of Birmingham) reminded us that steroids do not help in the acute syndrome but plasma exchange and gamma-globulin therapy could hasten recovery and reduce the patient’s time in hospital. High quality supportive care and vigilance for autonomic disturbances are essential. In discussing whether plasma exchange or gamma-globulin therapy should be offered routinely, Dr Winer stressed that plasma exchange could be difficult to arrange and its potential complications should be considered beforehand.

Surgery for epilepsy

Mr A R Walsh (Queen Elizabeth Hospital, Birmingham) gave a fascinating account of the role of surgery for partial (focal) epilepsy with or without secondary generalised fits. Patients with medically intractable and disabling seizures are potential candidates for surgery. We enjoyed a comprehensive review of the selection and assessment process which has been greatly assisted by MRI imaging as well as video-EEG monitoring. Various aspects of surgical technique and peri-operative cortical mapping were also well displayed.

The benefits of surgery can be impressive if potential candidates are carefully selected, but Mr Walsh indicated that surgery ought to be considered more often and perhaps sooner. From the figures presented there appeared to be as many as 1,500 patients in the West Midlands for whom surgery might be of benefit.

Chronic lung infections

Dr R A Stockley (Queen Elizabeth Hospital, Birmingham) pointed out that chronic lung infections represent an inflammatory and destructive process. Neutrophils are found in greatest numbers in purulent secretions which contain products of neutrophil elastase activity. Proteolytic enzyme release from activated cells leads to epithelial injury, reduced mucociliary clearance and immunoglobulin damage, frustrating the immune response.

Neutrophil products such as elastase disappear from the sputum of patients responding to antibiotics only to reappear after treatment is complete. Relapse can be delayed by increasing doses of antibiotic, particularly with high concentrations in sputum achieved by using nebulised therapy. Future attempts to influence the effects of chronic lung infections will involve reducing the inflammatory response either by introducing inhibitors of elastase into the sputum or by interfering with neutrophil function in various ways.

Pneumocystis carinii—an opportunistic yeast

Dr J M Hopkin (Churchill Hospital, Oxford) gave an account of this organism which is widespread in the environment and causes P carinii pneumonia (PCP). The organism has two phases. The first consists of a thick-walled cyst containing two to eight sporozoites, which are the replicative form of the organism. The trophozoite or released sporozoite sits on the type I pneumocytes lining the alveoli causing severe hypoxia (the cause of death).

Diagnosis depends upon identifying the organism in induced sputum or fluid obtained by broncho-alveolar lavage using a non-specific silver stain or immunofluorescence with monoclonal antibodies to P carinii. The DNA sequence can distinguish this organism from related ones and the polymerase chain reaction amplifies the information, giving a sensitivity of over 98%.

Post mortem samples from the lungs of patients not at risk of PCP have proved negative for amplified DNA. Consequently the disease is no longer thought to represent recrudescence of previous asymptomatic infection but rather a freshly acquired infection in the immunocompromised patient.

Atypical mycobacterial infections

Dr J A Innes (Birmingham Heartlands Hospital) gave an interesting account of these unusual infections, of which few of us have much experience. He described the classification, epidemiology and pathogenesis of atypical mycobacteria. Pulmonary disease in non-immunocompromised patients usually affects those with chronic lung disease and is clinically and radiologically indistinguishable from conventional tuberculosis. Treating M kansasii infections with ethambutol and rifampicin for 9–15 months helps patients.

M avium is the commonest cause of tuberculosis-like cervical gland histology in white children in the UK and the USA. There is no benefit from drugs after excision biopsy, but drug therapy is useful for discharging nodes.

Disseminated infection in AIDS patients with very low CD4 counts is usually due to M avium. It produces mainly systemic symptoms. Management is only palliative with, for example, azithromycin and ciprofloxacin. Corticosteroids can reduce systemic symptoms but at the price of a greater incidence of thrush.
Pollution and asthma

Dr J G Ayres (Birmingham Heartlands Hospital) presented an interesting review of this topical subject. He stressed the difficulties in satisfying all the criteria for an epidemiological relationship between pollution and asthma. Particulate matter exposure has been reduced since the Clean Air Acts of 1956. Now the main sources of pollution are road transport (nitrogen oxides) and the power industry (sulphur dioxide). Although there is evidence that air pollution can produce acute problems in patients with pre-existing asthma, it is more difficult to prove that exposure of a population to such pollution for months or years will increase the number of patients with asthma. Nitrogen dioxide might act as a permissive agent to increase sensitivity to an allergen, a virus or other stimuli such as cold air.

Drug-induced liver disease

Dr J Neuberger (Queen Elizabeth Hospital, Birmingham) reminded us that drugs can cause any type of liver damage and one drug can cause more than one type. The possibility of damage from herbal and non-orthodox remedies has to be considered. Dr Neuberger alerted us to the risk of liver damage from carp bile and green mussel extract, esteemed for their alleged aphrodisiac properties.

Drugs can interfere with liver cell structure or with function either directly or through a metabolite. The drug or its metabolite may produce a new antigen on the surface membrane, so inviting an immunological attack. Pregnancy, malnutrition and microsomal enzyme induction can also alter susceptibility to drug induced hepatitis.

Dyspepsia

Dr R P Walt (Queen Elizabeth Hospital, Birmingham) stated that, although endoscopy is the preferred screening test owing to its greater diagnostic yield, albeit with a small risk to the patient, endoscopic screening of all dyspepsia sufferers could at best (assuming 100% success) identify approximately 50% of gastric cancers, 60% of peptic ulcers and some patients with Barrett’s oesophagus; endoscopy would thus miss a proportion of early stage I gastric cancers and many of those identified would be incurable/inoperable. A stronger case could be made for diagnosing peptic ulcers by endoscopy but the workload for an average health district would be prohibitive with the resources currently available.

Dr Walt concluded that an unselected screening programme for dyspepsia would be difficult to justify at present. Some method of case finding within the dyspepsia population was required. We were asked to note the higher incidence of disease in older patients with dyspepsia and also to consider testing for *Helicobacter pylori* in order to increase the yield of any screening endeavour.

Treatment of peptic ulcer

Dr J J Misiewicz (Central Middlesex Hospital, London) stated that the most important aetiological factor in duodenal ulceration is *Helicobacter pylori*, usually acquired by the faecal-oral route in the first two years of life, particularly in disadvantaged communities. Bismuth-based drugs in combination with metronidazole plus amoxycillin or tetracycline help to eradicate the organism. A recent development is combined therapy of a proton pump inhibitor with antibiotic, or the combination of H2 blocker plus bismuth and antibiotic. Its cure lasts until re-infection, which is uncommon in adults in developed countries. Problems include microbial resistance after prior use of metronidazole for other conditions, poor compliance because of side effects, and difficulties with drug penetration.

Intestinal and pancreatic adaptation

Professor R H Dowling (UMDS, London) concluded the first day’s educational programme with the College regional lecture on ‘Cellular and molecular biology of intestinal and pancreatic adaptation’. He described how the future management of patients with short bowel syndrome will benefit from further understanding of the cellular growth factors responsible for intestinal and pancreatic adaptation.

Management of chest pain

Dr M D Gammage (Queen Elizabeth Hospital, Birmingham) outlined the management of unstable angina with bed rest, oral aspirin and intravenous heparin. Nitrates should be used and beta-blockers can be considered, but calcium channel blockers do not help. Urgent angiography is indicated if the pain does not settle, but the role of angioplasty in this acute situation is still unclear.

In discussing the differential diagnosis of chest pain Dr Gammage emphasised that non-specific chest pain is a useful clinical diagnosis characterised by localised pain radiating to the arm but not to the neck or jaw, having an inconstant relationship to exercise, rarely being increased by cold, and relieved by nitrates after more than 20 minutes. It is important to avoid mislabelling non-specific pain as angina.

Exercise testing is an inexact art with a sensitivity and specificity of only about 75%. Thallium scintigraphy is a useful non-invasive investigation and gives the same prognostic information as coronary angiography, the ‘gold standard’.

Chronic stable angina should be treated first by aspirin and sublingual nitrates, followed by the addition of a beta-blocker, long-acting nitrates or a
Management of myocardial infarction

Dr D A Chamberlain (Royal Sussex County Hospital, Brighton) gave an entertaining account of the management of myocardial infarction. The ISIS-1 trial has shown benefit from atenolol compared with placebo. ISIS-2 has shown conclusively the benefit of aspirin, alone and in combination with thrombolytic therapy (streptokinase), for the treatment of evolving myocardial infarction. Total vascular mortality is 23% lower with aspirin alone than without treatment, 28% lower with streptokinase alone and 42% lower with combined treatment. With aspirin there are also highly significant reductions in non-fatal myocardial re-infarctions and non-fatal stroke. Thrombolysis using tPA with heparin gives marginally better results than streptokinase and heparin, but cost/benefit considerations still favour streptokinase. We were urged to aim for a “door to needle” time of less than 15 minutes for ‘fast track’ patients—and to obtain a fax machine at home if on-call for CCU.

Other developments include the use of angiotensin converting enzyme (ACE) inhibitors in patients with clinical signs of heart failure, magnesium, and interventions such as immediate angioplasty. Dr Chamberlain recommended that low-risk infarct patients should continue to receive aspirin, those at moderate risk aspirin and atenolol, whilst high-risk patients should take aspirin and an ACE inhibitor. He remarked that it is still possible to die following myocardial infarction, but it is becoming more difficult.

The post-infarct patient

Professor B L Pentecost (British Heart Foundation, London) emphasised the importance of preventing further myocardial damage after a first infarct. Strategies in secondary prevention include risk factor reduction, routine medication (as outlined by Dr Chamberlain), and detecting those at high risk of re-infarction. The latter provoked considerable debate concerning the role of exercise testing, with the implication that this should be employed more often to identify patients with significant ischaemia.

Fetal origins of non-insulin dependent diabetes

Professor J P Barker (University of Southampton) gave a fascinating account of the fetal origins of non-insulin dependent diabetes mellitus. He showed that intrauterine development can programme organ systems to operate in different ways during life. Under-nourishment of the fetus during mid-gestation results in changes in insulin secretion and insulin resistance which predispose to diabetes, hypertension and coronary artery disease in later life. Whilst the sound advice we had received from previous speakers on risk factor reduction was clearly relevant, it was sobering to learn that to some extent our cardiovascular destiny has already been determined at birth.

Impotence in diabetes

Dr R E J Ryder (Dudley Road Hospital, Birmingham) thought that impotence was probably under-reported by diabetic men and 30–50% might be affected. Neuropathy and/or vascular causes predominate over psychogenic factors in its aetiology. Vacuum devices make successful intercourse possible in the majority who prefer them to intracorporeal injections of papaverine. Dr Ryder proposed that each district should offer an impotence service which enlisted the expertise of a urologist, a diabetic physician and a psychiatrist.

Management of hyperthyroidism

Dr Jayne A Franklyn (University of Birmingham) reviewed the treatments currently available, which include drugs (thionamides), radioiodine or surgery, and told us about appreciable differences in treatment strategies between Europe and the USA.

Carbimazole or propylthiouracil can be used long-term (or while awaiting a possible remission in Graves’ disease) or short-term prior to radioiodine therapy or surgery. In the UK, 18 months therapy is considered appropriate for young patients with Graves’ disease. Those who relapse, as well as older patients, should proceed straight to radioiodine therapy. Agranulocytosis is equally common with carbimazole and propylthiouracil (1 in 1,000) and can occur at any time. It is reversible but fatalities still occur and monitoring of therapy needs to be tightened up.

There are three problem areas with radioiodine: the perception of risk especially in the young; the choice of optimum dose; and the risk of subsequent hypothyroidism. Reassuringly, the risk of birth defects attributable to radioiodine is extremely small (0.004%). Standardised incidence ratios for cancer and leukaemia are not increased, although data for the latter come from older patients and have to be applied with caution to the younger patients currently being treated. Dr Franklyn expressed some anxiety that radioiodine therapy might exacerbate Graves’ ophthalmopathy, so the practice in her unit is to avoid its use when eye disease is active or deteriorating. Finally, follow-up after radioiodine therapy needs to be life-long because the incidence of hypothyroidism does not lessen with time.

Partial thyroidectomy has well recognised risks, a relapse rate of around 10%, and the same incidence of postoperative hypothyroidism as radioiodine therapy.

In summary, Dr Franklyn recommended short-term
drug therapy to control symptoms prior to the use of radioiodine, with a more prolonged course in younger patients with Graves’ disease in whom a remission might supervene. In other circumstances (excluding pregnancy) radioiodine is preferred; the role of surgery seems to be limited.

Meeting of local medical staff and College officers

At the conclusion of the educational proceedings, the President and College officers met with local medical staff and others attending the conference to report on the College’s activities and listen to our comments. This was a welcome addition to the programme.

Professor Turnberg conveyed to us that these were exacting times for the Health Service and for the College. Whilst the College does not wish to act as a political voice for the profession (a function for the BMA and other groups) it sees the need to speak up on behalf of patient care, and is doing so as best it can. He reminded us of the profusion of recent reports issued by the Department of Health, many of which had been prepared with little consultation and with very tight deadlines for response. In the case of the ‘new deal’ on junior doctors’ hours and the Calman report the College has strongly emphasised the need for an increase in consultant numbers if the profession is to maintain high standards of care and training.

The place of the general physician seems set to become increasingly important as consultants adopt an expanded role in front-line duties. The needs of academic medicine were also highlighted, particularly in relation to the Calman report. The College believes that many doctors, mainly those in the popular medical specialties, will still undertake a period of research leading to a higher degree before entering the unified training grade.

The new contracting process is creating divisions between specialists and other professional groups including general practitioners. To counter this the College has established liaison groups with the Royal College of General Practitioners and also the Royal College of Nursing. Closer working links have also been developed with patient and carer self-help groups.

This exchange of information and opinion between ‘headquarters’ and the regions is of value and is worthwhile repeating at future regional meetings.

Conclusion

As the above summaries indicate, the conference covered a wide field, and was well attended throughout. The standard of presentations and time-keeping was universally excellent. The speakers enjoyed lively discussions with their audience who were often skilfully directed by the chair towards contentious issues.

In addition to the oral presentations there were 32 poster displays reflecting a broad range of current research in the Birmingham area.

The whole meeting was expertly organised by the College staff and the regional adviser, Dr A M Zalin, whose summing up was endorsed by those attending—namely that, despite the current dilemmas on the political front, the College had presented a first-rate educational programme in Birmingham.

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