Left ventricular hypertrophy in women after the menopause

There is a substantial increase in the risk of cardiac disease in women after the menopause. An example is that out of 3613 women aged 50–79 years between 1 and 13% were deemed to have left ventricular hypertrophy dependent upon the technique used to define this (Am J Cardiol 2006; 97: 512–9). Factors increasing the likelihood of the condition were age (odds ratio (OR) 0.66), height (OR 1.47), waist/hip ratio (OR 1.3), systolic blood pressure (OR 1.18), recent oestrogen use (OR 0.6), smoking (0.47), low-density lipoprotein concentration (OR 0.97) and energy intake (OR 1.16). It remains uncertain whether these effects related to the menopause rather than ageing and indeed whether the data take us much further in treatment or prevention of disease in individual patients.

Age-related eye disease and mortality

It is well recognised that ageing is associated with deterioration in vision but more surprising to note that poor vision can reduce life expectancy. In a recent journey into this field, eye conditions scrutinised included maculopathy, cataract, glaucoma visual impairment and diabetic retinopathy. Records from patients aged 43–84 years revealed hazard ratios (HR) for mortality of 1.16 for cataract, 1.3 for diabetic retinopathy and 1.24 for visual impairment. There was no increase in risk for patients with glaucoma. Other than being at increased risk of being knocked down by a bus or falling downstairs, it is difficult to see why people with poor vision should have a reduced life expectancy. Patients with a retinopathy may die from the complications of diabetes, but quite why cataracts should have this effect is unclear.

Osteoarthritis in 2030

It is interesting to note the predicted changes in the prevalence of osteoarthritis over the next 30 years (Arthritis Rheum 2006; 54: 226–9). Calculations were taken from data recorded on 31,000 adults in the National Health Interview Survey from the United States of America. It was estimated that the number of people with osteoarthritis would increase from 47.8 million in 2005 to 67 million by 2030 and that the proportion of people disabled by the condition would increase to 9.3%. By 2030, over 50% of patients with osteoarthritis would be over the age of 64 years. It is important to note however that one-third of the total would be between the ages 45 and 64 years. It is clear that osteoarthritis bids fair to be an even greater cause of disability than it is now and that although elderly people will be most at risk, a fair number of the middle aged will also be affected.

The menopause and ‘hardening of the arteries’

In the distant past, a popular explanation for frailty in old age was ‘hardening of the arteries’. The severity of this has been studied in 3149 Japanese women (Atherosclerosis 2005; 184: 137–42). Evaluation of brachial and ankle pulses revealed that post-menopausal women had a more rapid decline in pulse waves. The abnormality was greatest in those who had experienced the menopause at least 6 years ago. It is of interest that the phenomenon was independent of age. Quite what the cause of this is and whether it has an adverse effect on cardiac function remains to be seen.

Cardiac ageing and stem cells

Despite the attention given to stem cell research by the press and television, there must be many clinicians who consider that it will be a long time before advances in this field will impact on hospital wards. There is the possibility though that this will happen sooner than we think.

A recent review has emphasised that a decline in cardiac function in old age may be because of cardiac stem cell dysfunction. (Basic Res in Gerontol 2006; 100: 482–93). Cardiac function is as well maintained as it is because cardiac stem cells replicate themselves throughout life. The mechanism may eventually break down when telometric DNA, the material regulating stem cells, develops errors in its structure. The authors postulate that replacement of this material by healthy DNA might restore power to the failing heart. Interesting though this is in theory, we have yet to find out whether it will actually work. There is also the probability that in most old people poor cardiac function is because of disease rather than ageing.

Breathlessness in old age

A review of patients from a general practice has revealed that breathlessness is common in old age (Fam Pract 2006; 23: 34–9). Of a sample of 124 patients aged 70 years and over, 23% had moderate-to-severe breathlessness as defined by the Medical Research Council Scale, while 37% had the same degree of symptoms as defined by the Baseline Dyspnoea Index. The symptoms correlated with greater age, a poor personal perception of health, symptoms of anxiety and depression and impaired physical function. Over 8 years, there was a correlation between mortality and the severity of symptoms. The most significant finding was the high prevalence of symptoms. The correlation with other conditions and mortality might be expected but might provide some guidelines as to the more effective management of the condition.
**Bicalutamide and cancer of the prostate**

Most agents tried in the treatment of cancer of the prostate have been found wanting and the search continues for a more effective drug. One that shows promise is bicalutamide, a testosterone-blocking agent. One controlled trial evaluated the drug against standard therapy consisting of a ‘wait and see’ policy, radiotherapy or radical prostatectomy (Br J Urol 2006; 77: 247–54). Over a period of 7.4 years, the drug was of no benefit in patients with an early cancer, but in patients treated with radiotherapy, the drug reduced the HR for mortality to 0.65. In patients with an advanced tumour merely kept under observation, there was a marginally reduced HR of 0.83 for mortality. Patients with radical surgery given the drug derived no benefit from the drug. Clearly, there is a need for further research into the efficacy of the drug and the identification of more potent agents.

**Quality of life in old people with skin disease**

Review of the literature suggests that little attention has been given to the treatment and effects of skin disease in old age. Such being the case, an assessment of the quality of life of old people with skin disease is particularly welcome (Br J Derm 2006; 154: 150–3). One hundred elderly patients referred to a dermatology service were assessed by a Dermatology Life Quality Index (DLQI), an Illness Perception Questionnaire (IPQ) and a Hospital Anxiety and Depression Index (HADS). There were 51 men and 49 women. Patients with rashes scored worse on the various tests than those with other lesions, and there was a linear relationship between the DLQI and the extent of the rash. This information may help in the social and psychological management of patients. The study may also lead the way to more sensitive management of elderly dermatological patients in the future.

**Gene therapy in osteoporosis**

Gene therapy is a recent concept, which many of us did not even contemplate when we qualified in medicine. There is evidence, however, that the concept may be reaching the point where it may soon be incorporated in clinical practice. One example is that it has been established that mesenchymal stem cells from the skeleton of aged rats have a reduced rate of bone production than those of young animals (Calcif Tissue Int 2005; 77: 395–403). The process could be reversed by translocating a BMP2 gene into an aged stem cell. This stimulated osteogenic activity and increased bone formation. It may not be too far fetched an approach to suggest that the technique may be in place to prevent bone loss in the first manned flight to Mars!

**Respiratory syncytial virus and influenza in hospital admissions**

There is continued ambivalence about the prevalence and severity of respiratory syncytial virus (RSV) infections in infants and elderly patients admitted to hospital. This has been partially elucidated by a retrospective review of patients admitted to hospital with respiratory infections in the Greater London Area between April 1994 and March 2001 (Clin Infect Dis 2006; 42: 640–6). Rates of admission for children <1 year old were 5 per 1,000 and in old people 0.7 per 1000. Few infants were admitted with influenza but the rate for patients over 65 was 1.1 per 1,000. These data indicate that whereas RSV is a major cause of illness in infants, its role in elderly patients is less certain. Review of the latter in other situations in other parts of the country may be necessary to elucidate the issue.

**Aerobic exercise and stroke**

A major cause of incapacity in patients with a stroke is a low exercise capacity. Would a programme of aerobic exercises improve the situation? This was tested by reviewing previous trials of the procedure on such patients (Clin Rehabil 2006; 20: 97–111). Nine trials were included as being reliable with seven being randomised and controlled. In all, 480 subjects were included. Treatment groups received anaerobic exercises over 20–40 min between 3 and 5 days per week. The process produced an improved exercise capacity in the treatment groups and was also associated with improved walking velocity and endurance. It seems clear that such an exercise is an important adjunct to other rehabilitation techniques during stroke recovery.

**Rivastigmine and donepezil in Alzheimer’s disease with concomitant Lewy body features**

Both rivastigmine (acetylcholinesterase and butyrylcholinesterase inhibitor) and donepezil (acetylcholinesterase inhibitor) are of some benefit in patients with Alzheimer’s disease. They have slightly different effects however, and it was suggested that the differences may be affected by the concomitant presence of Lewy body abnormalities (Curr Med Res Opin 2006; 22: 48–59). Data for the present study were taken from a larger and earlier study of 994 patients which contained a subgroup in which 25 on rivastigmine and 24 on donepezil had features of concomitant Lewy body disease. Over 2 years, the subgroup on rivastigmine made more progress on a variety of cognitive tests, but there were also some who developed a variety of gastrointestinal side-effects. Limitations of the study include the fact that the numbers in each subgroup were small and that there can be difficulty in making an accurate diagnosis of Lewy body disease.

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