Acute myeloid leukaemia in old age: can the prognosis be improved?

Although the prognosis for chronic leukaemia is often good in old age, the response of old people to treatment for acute leukaemia is universally disappointing. A group in the USA have tackled this by looking for variations in the characteristics of acute myeloid leukaemia in 211 patients aged over 55 years (Blood 1997; 89: 3323-9). Investigations revealed that a large proportion had unfavourable cytogenetics (32%), multi-drug resistance I (MDRI) protein expression (71%) and a functional drug efflux (58%). When patients with abnormalities in these factors were treated with standard doses of cytosine, arabinoside and demeclocyclin, they had a poor complete remission rate. Those without MDRI protein expression and favourable/intermediate cytogenetics had a 81% complete remission rate, whereas those with MDRI protein, unfavourable cytogenetics and a secondary episode of acute myeloid leukaemia had only a 12% complete remission rate. These findings should enable haematologists to make a more accurate selection of patients for standard cytotoxic therapy and to search for alternative forms of care for the remainder.

Systolic hypertension and stiff aortas

A high systolic pressure is an important risk factor for cardiovascular morbidity and mortality. A recent review article emphasizes the importance of reduced aortic distensibility as a cause of this (J Am Col Cardiol 1997; 29: 407-13). This observation has been facilitated by the use of a variety of ultrasound techniques to measure changes in the dimensions of the abdominal and thoracic aorta. They have also been used to calculate pulse-wave velocity through the aorta. As this increases, there is an increased retrograde pulse-wave which, in old age, reaches its maximum effect in systole, further accentuating the systolic pressure. The practical consequence of this rather abstruse study is that pharmacologists should be reviewing drugs which increase aortic compliance. Examples include the nitrates, angiotensin-converting enzyme inhibitors and calcium channel antagonists. In the future, ultrasound may be used more in the selection of elderly patients for specific forms of treatment.

The painful shoulder

Although many old people complain of a painful shoulder, many of us are inept at diagnosing and treating it. One approach is to use a questionnaire. A New York group describes the development of a self-administered questionnaire on shoulder pain (J Bone Joint Surg 1997; 79a: 738-48). Areas covered were ability to cope, severity of pain, sleeping pattern, frequency of pain, household activities, dressing upper half, combing or brushing hair, reaching high shelves, washing lower back, lifting a bag, continuation in recreational activities, throwing a ball, limitation of favourite recreational activity, work pattern, ability to work, frequency of attendance at work, reduction of daily working hours, satisfaction with shoulder, and areas in which patient would most like to see improvement. Questions relating to sport and work might be inappropriate for many old people, but with some modifications the questionnaire could be extremely useful in providing a more objective assessment of symptoms and function in a condition which causes a great deal of disability in old age.

Does measuring heel thickness help predict fractures?

In preventing fractures, one of the difficulties is defining patients most likely to benefit from oestrogens or bisphosphonates. A contribution has been a 5-year follow-up study in cohorts of men and women aged 75-80 years of the predictive value of measured calcaneal bone mineral density for the occurrence of fractures (J Bone Min Res 1997; 12: 1075-82). Calcaneal density was measured by single-photon absorptiometry. Both men and women with a higher bone mineral density had a lower risk of fractures. It remains to be seen whether measuring calcaneal density will have the same predictive accuracy as measurement of the proximal femur or vertebral bodies.

Should old men take body-building drugs?

Elderly men considering participation in the next Olympic games may be tempted to try testosterone. A recent review article discusses the pros and cons of this (J Clin Endocrinol Metab 1997; 82: 1659-60). It is argued that sarcopenia in old men is due to testosterone deficiency and that supplementation should correct this. Short-term trials of the hormone in men with relative androgen deficiency have increased fat-free mass, muscle strength and a feeling of well-being. In a recent long-term trial, testosterone increased muscle strength. Equally important, it had no serious side effects (such as elevating serum prostate-specific antigen). Much more work is needed before testosterone is used routinely in androgen-deficient old men. Until then, the best way of ensuring a place in the Olympic team is to take plenty of exercise.
Daily activities and energy expenditure

One of the problems bedevilling nutritional studies in old age is measurement of energy expenditure. Clinical assessment systems are usually crude and inaccurate, while laboratory tests may be too cumbersome for routine use. An attempt has recently been made to develop an activity scale and to validate it against a laboratory system measuring energy expenditure (J Clin Epidemiol 1997; 50: 541-46). The Physical Activity Scale quantified the amount of time spent in a range of activities each day. Total energy expenditure was measured by administering water labelled by two isotopes and subsequently measuring their excretion. There was good correlation between assessment of activity and energy expenditure, the coefficients of correlation being 0.79 for men and 0.68 for women.

E. coli—a new Hammer of the Scots

E. coli 0157 has received much publicity over the last year and has had a particularly serious effect on elderly patients. There is an excellent review of the epidemiology, clinical features and control of this organism (J Infect 1997; 34: 93). Cattle are the main source of infection and the organism is most likely to survive in minced products, where it is not destroyed unless the centre of the product is adequately cooked. The rate of infection in Scotland is 4.73 per 10^5 compared with one of 0.8 per 10^5 in England and Wales. The Pennington report has recommended that there be legislation to improve surveillance of the disease, publicity on adequate cooking of ground-meat products, improved methods of handling and preparing food, and improved standards in abattoirs.

Heart disease in older women

A recent study has provided a useful update on the prevalence, pathogenesis and prognosis of heart disease in a population-based sample of women over the age of 80 years (J Int Med 1997; 241: 387–94). Of the women, 8.2% had congestive cardiac failure, and, of these, 54% also had ischaemic heart disease, 54% hypertension and 51% aortic or mitral valve disease. Clearly, most women had more than one of these conditions. The relative risk of death for patients with congestive cardiac failure was 2.1 for all causes of mortality and 4.2 for cardiovascular death. This paper is a timely reminder of the importance of heart disease as a cause of death amongst elderly patients. With recent developments in clinical pharmacology and cardiac surgery, it should be possible to improve on the above figures.

Why granny and grandpa look grumpy?

Old people are often accused of being irritable and grumpy. This may have nothing to do with their state of mind, but is the result of brow ptosis associated with connective tissue changes. Relief is on the way! The deformity can be corrected with plastic surgery involving brow elevation and correction of brow asymmetry (Larygoscope 1997; 107: 710–5). Less radical procedures include excision or paralysis of the frontalis, conjugator supercilii or procerus muscles. In reporting on their work, the authors had difficulty in quantifying their results and hoped that computer analysis of photographs might eventually solve this problem. In the meantime, you have the opportunity to look less grumpy. Whether or not you feel more grumpy when you get your medical bill is another matter.

How common are aortic aneurysms in elderly men with diabetes mellitus?

Abdominal aneurysms are a common cause of mortality, particularly in elderly men. A recent survey has evaluated the effect of diabetes mellitus on the prevalence of this condition in men aged 60 years and over (Med J Aus 1997; 166: 630–3). Rather surprisingly, the prevalence of treated and untreated aneurysms was only 2.3%, a figure lower than that recorded in an age- and sex-matched general population. There are as yet no plausible explanations for this discrepancy.

Oestrogen replacement and Alzheimer’s disease

Increasing attention is being directed to the possibility that oestrogen replacement therapy (ORT) may reduce the risk of women developing Alzheimer’s disease (AD). Researchers in the Baltimore Longitudinal Study of Aging report on the follow-up of 472 pre- or postmenopausal women over 16 years (Neurology 1997; 48: 1517–25). They found that 45% of women had used ORT and that there were 34 new cases of AD, including nine in those on ORT. This gave a relative risk of AD for subjects on ORT of 0.46. Further studies, including prospective controlled trials, are necessary, but this work offers an encouraging new approach to the prevention and/or treatment of AD.

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