News and reviews

Nitric oxide
In recent years the role of nitric oxide has been investigated in many disorders. Effects include vasodilation, inhibition of platelet aggregation, mediation of macrophage cytotoxicity and neurotoxicity. It was inevitable that attention should be turned to its possible role in Alzheimer's disease (Acta Neurol Scand 1996; 94: 411-4). In the investigation, plasma and cerebrospinal fluid nitric oxide levels were compared in Alzheimer's disease patients and controls. There was no difference between the groups. This could be dismissed as yet another negative study of Alzheimer's disease, but it is only by such a process of elimination that we are going to come up with answers for this devastating disease.

Atrial fibrillation
One of the most common and troublesome cardiac conditions in elderly patients is atrial fibrillation. A much more active approach is now being taken to its management. A large multicentre study from the USA investigated the efficacy of cardioversion of atrial fibrillation in patients under and over 65 years (Am J Cardiol 1996; 78: 1380-4). Rates of success in younger and older patients were 76.1 and 72.2% respectively; the incidence of side-effects being 4.2 and 5.3%. Age itself is rarely a barrier to treatment, and moderately fit old people respond to this approach just as well as those who are much younger.

β-carotene and immune response
Old age is characterized by a reduced immune response to infection. Much effort has gone into identifying its causes and possible therapies. Treatment of a small group of doctors in a controlled trial suggests that β-carotene may be of value (Am J Clin Nutr 1996; 64: 772-7). Its principle activity was to improve killer cell activity. The precise mechanism remains obscure, and clinicians might be wise to await further developments before routinely offering this substance to their patients.

Asymptomatic abdominal aneurysm
Asymptomatic abdominal aneurysm is common in older men and, without early surgical intervention, there is a high risk that it will rupture. A recent review of cardiac features associated with the condition gives pause for thought, however (Angiology 1996; 47: 1139-43). In a group of 78 patients with the aneurysm, 61.5% had hypertension, 50.0% angina pectoralis, 25.6% a previous myocardial infarction and 38.5% had had treatment for heart disease. There was also a wide range of electrocardiogram abnormalities. Surgery may be the only answer for an abdominal aneurysm, but is likely to be performed in an extremely high-risk patient.

Before-death experiences
Although it would be useful to know what patients feel when they are dying, it is unlikely that we will ever be in a position to provide this information in time to be of use to anyone. A group of American physicians has taken the next best approach by checking case notes and interviewing relatives and other carers (Ann Intern Med 1997; 126: 97-106). Fifty-five percent of patients were conscious for the last 3 days of life; they often experienced considerable pain, breathlessness and fatigue; and 63% had almost intolerable physical or emotional symptoms. We have rightly devoted a great deal of attention to the palliative care of patients with malignancy. Is it not time that we extended this approach to patients dying of other disorders?

Non-small cell carcinoma of bronchus
Should an elderly patient with a non-small cell carcinoma of bronchus be considered for resection? A group in the USA has compared experience in patients aged less than 45 years with those aged 80 years or more (Ann Thorac Surg 1997; 63: 193-7). Surgery on early stage tumours gave a median survival of 97.2 months in younger individuals and 19.1 months in the older group. The difference in life expectancies could have been the result of intercurrent pathology in old age rather than a less effective response to surgery. An issue of greater concern was that only 6% of elderly patients with early tumours received surgery. Was this the result of other pathology or simply a reluctance to operate on old people?

Thyroxine and osteoporosis
Thyrotoxicosis causes osteoporosis, but does treatment with thyroxine cause similar problems? Meta-analysis of data from trials of thyroxine replacement and suppression treatment suggests that replacement only causes hip and spine bone loss in premenopausal women, with suppression only causing loss in those who are post-menopausal (J Clin Endocrinol Metab 1996; 81: 4278-89). This is confusing. It may be, as the authors suggest, that we need a large placebo-controlled trial.

Multi-infarct dementia and hypotensive agents
Increasing interest has been shown in the benefits or
otherwise of treatment of multi-infarct dementia with hypotensive agents. The results of treatment in hypertensive rats (J Gerontol 1996; 15A: B454-60) should give pause for thought. Either propranolol or captopril were given to the animals, which were then tested in a Morris water maze. Propranolol caused a reduction in both performance and cerebral blood flow, while captopril had no effect on either. Clearly, there are differences between humans and rats. Most old people are out of the rat race, and are unlikely to tackle a water maze unless they go on a particularly exotic activity holiday.

Environmental hygiene
The attention given to a recent community outbreak of *Escherichia coli* 0157 in Scotland, brings increased interest in environmental hygiene. A report on infectious intestinal disease in institutions in England and Wales for 1992-4 (J Infect 1997; 34: 49-54) is particularly timely. Episodes in institutions accounted for 22% of all outbreaks and 95% of these institutions were homes for elderly people. The most commonly isolated organism was round structures virus (48%). Infection usually spread from person to person, but was foodborne in 21% of cases. Hospital admission was necessary in 22% of cases, and there were 26 deaths (22 due to salmonella). Continued vigilance is necessary in this situation.

Lewy body disease or Alzheimer's disease?
Lewy body disease can be difficult to distinguish from Alzheimer's disease. A study which correlates the clinical and autopsy findings of the two diseases may be of some help (J Neurol Neurosurg Psychiatry 1997; 62: 16-21). Brain bank material gave 39 cases of Lewy body disease and 61 cases of Alzheimer's. The former had more frequent visual hallucinations (23% versus 3%), and signs of parkinsonism (41% versus 5%). Although this is of interest, the findings are of limited diagnostic value since the abnormal signs did not exceed 50% in the Lewy body group.

Denture loss
There is understandable distress when a patient loses his or her dentures. Fortunately, few have had to cope with them being swallowed. This situation is likely to change as more sophisticated and smaller prostheses are offered to older people. An example is a 62-year-old woman who swallowed a removable denture and had to have it removed by thoracic surgery (J Prosthet Dent 1996; 76: 571-2).

Total energy expenditure in patients with Parkinson’s disease
Why are many patients with Parkinson’s disease thin? One explanation is that they have a high resting energy expenditure. This is all well and good, but what about total energy expenditure? This has now been measured in patients with Parkinson’s disease and healthy controls, and it emerges that total energy expenditure was 15% lower in those with Parkinson’s disease (Neurology 1997; 48: 88-91). Further thought needs to be given to this metabolic dilemma.

Contributions to this column should be sent to Professor W. J. MacLennan, Geriatric Medicine Unit, Royal Infirmary of Edinburgh, 21 Chalmers Street, Edinburgh EH3 9EW, UK. Tel: (+44) 131 536 4535; Fax: (+44) 131 536 4536.