This month • dietary calcium • social connections • J-point • community medicine • prostatism

Calcium intake reduces hip fractures

MANY doubt whether following the current advice to older people of greatly increasing their calcium intake will be worthwhile. A community study of affluent elderly Californians suggests that even a moderate increase prevents hip fractures. The study interviewed 957 people (426 men, 531 women) aged 50–79 years during 1973–75 to ascertain their demographic, behavioural and medical histories, including a 24 hour recall of dietary intake. The patients were also examined and their body mass index (kg/m^2) calculated. At review in 1987 99.8% of the cohort were accounted for. Fifteen men and 18 women had sustained a hip fracture. The age-adjusted risk of fracture of the hip was less for those who reported higher levels of calcium intake at the initial interview.

The similarity in numbers of fractures in male and female patients is explained by the high use of hormone replacement therapy in the women at the time of recruitment (39%) and the fact that many were previous users or began hormone replacement therapy after the investigation began. Nevertheless the protective effect of increasing calcium intake was also observed in patients on hormone replacement therapy. No other dietary or behavioural variables studied showed a significant beneficial effect. Perhaps it is never too late to take more calcium?

(F.S.)

Source: Holbrook TL, Barret-Conner E, Wingard DL. Dietary calcium and risk of hip fracture: 14 year prospective population study. *Lancet* 1988; **2:** 1046-1049.

Loneliness and death

TEN years ago a study in Alameda county in the USA showed that an index of social network participation (contact with family, friends and other groups) was strongly associated with mortality from all causes. Subsequent reports from a variety of other locations, from Hawaii to Gothenberg, have not always been consistent with these early findings. Now the careful documentation of participants in the North Karelia project in Finland has been used to look into this problem further, with some interesting results.

The survey took place in 1972 and 1977 and the analysis was based on 13 301 people aged 39 to 59 years at the baseline examination. All the subjects were examined, given a variety of questionnaires and also had their serum cholesterol levels determined. Prevalent illness and cardiovascular risk factors were recorded and a social connections score was produced based on the number of social and family activities. There was a strong and consistent gradient of risk for men related to their social connections score, with the highest risk in those with the lowest score (fewest social contacts) and vice versa. The relative risks for those in the lowest quintile of social scores compared with the highest are 2.42 for deaths from all causes, 2.42 for deaths coded as cardiovascular disease and 1.92 for ischaemic heart disease. The pattern in women is less consistent and less marked. The sophisticated analysis used demonstrates that the risk is truly a function of social contacts and is independent of a number of risk factors and other potential confounding variables. There is, for example, no evidence that the association between social contact and mortality is an artefact of prevalent illness resulting in low social contacts.

The authors suggest that the notion of 'generalized susceptibility', in which the social environment is recognized as contributing to host resistance to a variety of diseases, may be one way in which the links between social activities and health can be further explored. Another approach would be to seek other physiological and behavioural pathways, possibly triggered by the same 'stimuli' which are both markers and potential mediators of disease.

(R.J.)

Source: Kaplan GA, Salonen JT, Cohen RD, *et al.* Social connections and mortality from all causes and from cardiovascular disease: prospective evidence from eastern Finland. *Am J Epidemiol* 1988; **128:** 370-380.

The J-point

THIS review article by a consultant cardiologist from ICI looks at the dangers of over-treatment of hypertension from the point of view of the J-shaped mortality curve for blood pressure. In large studies of hypertension which included patients with ischaemic heart disease, it has been found that lowering diastolic blood pressure past a certain point on the curve, the J-point, leads to an increase in mortality from ischaemic heart disease. Four of the six studies reviewed set the J-point at 85 mmHg but obviously this can vary according to age, heart rate and other factors.

Why does this phenomenon occur? The author believes it is due to a reduction in coronary artery flow reserve caused by coronary stenosis. Therefore, when the diastolic blood pressure falls below a certain point the myocardium is not adequately perfused, leading to ischaemia.

Does the J-point matter? According to the article it affects the choice of therapy. Drugs which reduced blood pressure while increasing heart rate would exacerbate the ischaemia, as the myocardium would not only be less perfused but also would be perfused for a shorter time. Thus beta-blockers would be a safer choice in those with hypertension and ischaemic heart disease. Lowering blood pressure is not the be-all and end-all of treating hypertension with its many risk factors and the serious complications of the disease itself and of its over-vigorous treatment.

(J.A.)

Source: Cruickshank J. Coronary flow reserve and the J curve relation between diastolic blood pressure and myocardial infarction. *Br Med J* 1988; **297:** 1227.

Community medicine and primary care

IN a recent article from Scotland it was pointed out that in a visit to four health boards, none had a policy for primary care and few general practitioners had any contact with community medicine specialists. With the reorganization of the health service in 1974 and the setting up of the Faculty of Community Medicine, the specialty which had been known as public health distanced itself from clinical contact and nailed its colours to the mast of management. In the ensuing years community medicine specialists have been conspicuous by their absence from general practice, and primary care is now reaping the rewards of this neglect by the confusion which surrounds preventive services.

This was illustrated by another paper which looked at the information flow bet-

ween health professionals and a child health computer system for the uptake of measles immunization. Such computer systems are being set up by many district health authorities in response to the Körner report, but this barely mentioned general practice where the vast majority of primary care contacts take place. As a result we now have primary care computerization developing in three different directions. There are the district health authority systems based on Körner, the family practitioner committee computerized records for item of service payments and sometimes recall, and then the growth of microcomputer systems in general practice itself. There is as yet little communication between these three developments. It is not surprising that computerized recall systems are often unsatisfactory if only because there is no system in this country of registering changes of address. One result is that information on immunization and child development recorded by health visitors and community health clinics is often not recorded in general practitioners' notes, which are the only records which should follow that child round for the rest of its life.

Perhaps medical schools need to take note of another paper in the same volume of *Community Medicine* which highlighted the lack of management training at all levels of medical education.

(D.H.)

Sources: Russell EM. Community medicine and primary care in Scotland. *Community Med* 1988; **10:** 112-116. Morris RW, Lakhani AD, Morgan M, *et al.* The role of information flow between health professionals and the child health computer system in the uptake of measles immunization. *Community Med* 1988; **10:** 40-47. Parkhouse J, Ellin DJ, Parkhouse HF. The views of doctors on management and administration. *Community Med* 1988; **10:** 19-32.

Prostatism — early resection prevents retention

BENIGN prostatic hypertrophy is one of the disadvantages encountered by man on gaining the erect posture and it is still regarded by many as an inevitable part of ageing. Prostatism is present in up to 10% of male Caucasians over the age of 50 years, and with an increase in male longevity we should be reviewing our passive approach to this problem.

A retrospective review of patients over 60 years old in one practice showed that out of 107 with documented prostatism, 43% developed acute or chronic retention before surgery. A prospective, questionnaire-based study of 316 men in this age group in the same practice revealed 14% with mild, and 6% with marked, prostatism, based on a positive response to symptoms such as hesitancy, poor flow, dribbling, and nocturia.

Benign prostatic hypertrophy is common and rarely life threatening but it is uncomfortable and may lead to renal impairment from increasing back pressue. As transurethral resection is now the procedure of choice for benign prostatic hypertrophy, screening in general practice to enable earlier elective intervention becomes more important. This also enables the patient to be educated about reducing the disruption of lifestyle caused by urinary symptoms, such as the need to avoid retention, the risks of excess alcohol consumption, and voluntary delay in micturition.

Future management of prostatism should be anticipatory with early elective surgery rather than waiting for the progress of symptoms such as retention.

(C.D.)

Source: Steyn M. Just old age? A study of prostatism in general practice. *Fam Pract* 1988; **5:** 193-195.

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INFECTIOUS DISEASES UPDATE: AIDS

● A European study group looking at sexual transmission of the human immunodeficiency virus (HIV) from infected men to their female partners identified three significant risk factors: a history of sexually transmitted disease in the previous five years for the female partner, the practice of anal intercourse, and the index patient having acquired immune deficiency syndrome (AIDS).[1] Couples with none of these risk factors had a 7% chance of seroconverting while those with two or three had a 67% chance. The overall rate of transmission was 27% (42/155).

Regardless of the duration of the relationship or the frequency of sexual contact, men with AIDS seemed to be more infective than asymptomatic carriers. It is likely that in a city such as Edinburgh, where there are large numbers of heterosexuals infected with HIV and as yet few cases of AIDS, there is the potential for a major epidemic of sexually transmitted infection.

● A 17-year-old Parisian male who had never injected drugs, had sexual intercourse or had a blood transfusion, presented with symptoms of acute HIV infection following a six-week course of acupuncture treatment for tendinitis.[2] This is only the third reported case attributable to this mode of transmission. Such cases although rare are likely to have resulted from the inoculation of relatively small amounts of blood and clearly remind us of the dangers of underestimating the infectivity of the human immunodeficiency virus.

● A consultation on AIDS and sport convened by the World Health Organization and the International Federation of Sports Medicine has concluded that there is no medical or public health justification for testing or screening athletes for infection with HIV prior to participation in sports activities. Indeed, as yet there has been no documented instance of transmission of HIV through sporting involvement.[3]

● At the end of 1988 a total of 9603 cases of HIV antibody positive persons had been reported to the CDSC and the CD(S)U. Of these, 71% had been reported by units in the Thames region and in Scotland, indicating the main HIV 'hot spots' in the UK.

Regarding AIDS, 2049 cases had been reported by 31 January 1989 of which 1089 had died. This compares with a total of 139 886 cases of AIDS from 144 countries reported to the World Health Organization in Geneva over the same period.

References

1. Vittecoq D, Mettetal JF, Rouzioux C, *et al.* Acute HIV infection after acupuncture treatments. *N Engl J Med* 1989; **320:** 250-251.
2. European Study Group. Risk factors for male to female transmission of HIV. *Br Med J* 1989; **298:** 411-415.
3. World Health Organization. Consultation on AIDS and sport. *CDS Weekly Report* 89/07 (A90).

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