demand among the general practitioners for postmortem reports. Local pathologists and coroners do not routinely supply reports to the general practitioner, but general practitioners clearly want them to. Similar findings have been reported elsewhere.[5]

Irrespective of who requests postmortem examinations, the benefits of the findings may be lost if reports are not readily available to the relevant doctors, whether they work in a hospital or in the community. We propose that a copy of every postmortem report should be sent to the family health services authority, which could forward it to the appropriate general practitioner.

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Effect of calcium and cholecalciferol treatment for three years on hip fractures in elderly women

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We recently showed that daily supplementation with 1·2 g calcium and 800 IU cholecalciferol over 18 months substantially decreased the risk of hip fractures and other non-vertebral fractures in elderly women living in nursing homes.[1] We report the results of a further 18 months of treatment.

Subjects, methods, and results

A total of 3270 mobile elderly women (mean age 84 (SD 6) years) living in 180 nursing homes were enrolled in the study. Half the women received 1·2 g calcium daily in the form of tricalcium phosphate, together with 800 IU (20 μg) cholecalciferol; the other half received a double placebo. All subjects were followed up every six months; biochemical variables were measured at baseline and every year in a subgroup of 52 women. Hip fractures and all non-vertebral fractures were separately analysed using a log rank test and an actuarial method; 95% confidence intervals are given.

The table shows the effects of supplementation on the number of fractures. The active treatment analysis show that after 36 months of follow up the probability of hip fractures (−29%; $P<0·01$) and all non-vertebral fractures (−24%; $P<0·01$) was reduced in the treatment group. The odds ratio for the decreased risk of hip fracture was 0·70 (95% confidence interval 0·62 to 0·78) and for all non-vertebral fractures 0·70 (0·51 to 0·91). The intention to treat analysis shows that 17·2% fewer subjects had one or more non-vertebral fractures (255 *v* 308, $P<0·02$) and 23·0% fewer subjects one hip fracture (137 *v* 178, $P<0·02$) in the treatment group. In addition, there was a decreased probability of hip fractures ($P<0·02$) and all non-vertebral fractures ($P<0·01$), with an odds ratio of 0·73 for hip fractures (0·62 to 0·84) and 0·72 (0·60 to 0·84) for all non-vertebral fractures. Women with a raised mean serum parathyroid hormone concentration and low serum 25-hydroxycholecalciferol concentration at baseline had normal values after three years of treatment.[1] By contrast, in the placebo group parathyroid hormone concentration significantly increased from baseline values and 25-hydroxycholecalciferol concentration remained low. We measured femoral bone density at baseline in 128 women and found a significant negative correlation between density and serum parathyroid hormone concentrations before ($r=0·34$) and after adjustment for age ($r=0·25$).

Effects of cholecalciferol and calcium supplementation on numbers of fractures in elderly women

	Cholecalciferol-calcium	Placebo	P value*
Active treatment analysis†			
No of women‡	872	893	
Hip fractures:			
Total No	109	155	
No of subjects with ≥1	109	153	<0·01
Fractures:			
Total No	218	284	
No of subjects with ≥1	205	270	<0·01
Intention to treat analysis‖			
No of women‡	1176	1127	
Hip fractures:			
Total No	138	184	
No of subjects with ≥1	137	178	<0·02
Fractures:			
Total No	301	368	
No of subjects with ≥1	255	308	<0·02

*By log rank test.
†Includes all subjects under treatment whatever duration of treatment.
‡No of patients at risk during the period adjusted for the censored observations.
‖Includes all subjects in active treatment analysis and those followed up after dropping out of study.

Comment

Our results are similar to those of Khaw *et al*, who found that bone density at lumbar spine and femoral neck in 138 women aged 45-65 was significantly negatively correlated with serum parathyroid hormone concentration after adjustment for age and body mass index (−0·18 and −0·21 respectively).[2] Our results also confirm a continued preventive effect of calcium and cholecalciferol supplementation on the risk of hip fracture.[1]

Increased parathyroid hormone secretion in elderly women seems to increase the risk of hip fractures. Hypovitaminosis D and a low calcium intake are the main determinants of this senile secondary hyperparathyroidism,[3,4] but their relative contributions to the risk of fracture are difficult to assess. Vitamin D and calcium reverse and prevent the effects of hyperparathyroidism on bone[3] and should be increased in elderly people with a low femoral bone mass and high serum parathyroid hormone concentrations or low serum 25-hydroxycholecalciferol concentrations. The best way would be naturally—by exposure to sunlight and increased consumption of dairy products—but elderly people are notoriously reluctant to change their lifestyle. Therefore daily supplementation with cholecalciferol and calcium salts is the most certain and safest way to reduce the risk of hip fracture because the side effects of physiological doses are negligible. An annual injection of calciferol has also been proposed but did not significantly reduce the number of hip fractures.[5]

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Survey of use of injected benzodiazepines among drug users in Britain

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Intravenous misuse of injected benzodiazepines began in Britain in the mid-1980s. At first the drugs commonly used were flurazepam and diazepam, but by the late 1980s, when the use of injected benzodiazepines had become widespread in several British cities, users were reported to be injecting mainly temazepam capsules.[1] In 1989 the manufacturers replaced liquid filled temazepam capsules with semisolid gel filled capsules[2] to prevent the drug from being injected. These capsules, however, are also being injected[3] and seem to lead to greater morbidity in individual users. Recently the use of triazolam[4] and nitrazepam has also been reported. We carried out a survey to determine the extent to which different formulations of benzodiazepines are injected.

Subjects, methods, and results

Self completion questionnaires about drug misuse were returned by 208 subjects attending drug clinics in seven cities around Britain during March and April 1992. The mean age of the respondents was 31, and the male to female ratio was 2·1:1·0. The respondents were attending the clinics mainly because of their use of opiates (n=171), although virtually all (199) had also used heroin at some time. The questionnaire enabled us to examine the extent to which different benzodiazepines had been injected.

In all, 184 subjects had injected a drug at least once. Of the 186 who had used benzodiazepines, 103 had injected them. The proportion of subjects from each clinic who had taken oral benzodiazepines was fairly constant, but the proportion who had injected benzodiazepines ranged from a third to three quarters in one of the larger clinics.

Proportion of 208 users of benzodiazepines who had injected any formulation

Drug	No who had used drug	No (%) who had injected drug
Temazepam:		
Capsules	158	93 (59)
Tablets	104	24 (23)
Syrup	37	7 (19)
Diazepam:		
Capsules	53	13 (25)
Tablets	156	35 (22)
Lorazepam tablets	73	8 (11)
Triazolam tablets	39	4 (10)
Nitrazepam:		
Capsules	30	3 (10)
Tablets	109	6 (6)
Chlordiazepoxide tablets	65	4 (6)

Most subjects had used temazepam capsules (158) and diazepam tablets (156) (table). Other benzodiazepines used included nitrazepam tablets (109), temazepam tablets (104), lorazepam tablets (73), chlordiazepoxide tablets (65), and diazepam capsules (53); nitrazepam capsules and tablets, triazolam tablets, and temazepam syrup had been used less commonly. We found substantial differences in the proportions of subjects who had injected these benzodiazepine formulations, ranging from 6% for nitrazepam tablets and chlordiazepoxide tablets to 59% for temazepam capsules (table).

Comment

Oral use of benzodiazepines was much more common among our subjects than among the general population, but the distribution of oral use across the range of benzodiazepines and their formulations was similar. Temazepam capsules, however, were the most commonly injected benzodiazepine. There has recently been debate as to whether the non-capsule formulations of temazepam are injected as commonly.[5] In our study the proportion of subjects who had injected temazepam tablets and syrup was substantially smaller than the proportion who had injected the capsules. Nevertheless, injection of temazepam tablets and syrup and diazepam tablets and capsules was still more common than injection of other widely used benzodiazepines such as nitrazepam and chlordiazepoxide (for which the prevalence of injection was a tenth that of temazepam capsules). Doctors who prescribe benzodiazepines to injecting drug users should consider the likelihood that a particular drug and formulation will be injected.

Would the problem be solved by removing temazepam from the picture? If temazepam capsules alone were removed, about half the drug users injecting benzodiazepines would still remain; if all three formulations of temazepam were removed, over a third of the users would remain, mostly injecting diazepam tablets and capsules. A focus on temazepam capsules therefore seems appropriate at present but may prove too narrow in the longer term.

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