edition. Cost was never given in Indian advertisments and was missing in 21 (57%) British advertisements. Space was regularly lost in unnecessary images; superlatives were used, without further qualification, rather freely in Indian advertisements (high quality, unsurpassed, unmatched, fastest, best, super-spectrum, safe) and with slightly greater caution in British advertisements (revolutionary, outstanding, power, faster, first line, trusted). Advertisements were usually placed strategically in the appropriate therapeutic section.

Comment

Although the information given in *MIMS* is generally well organised, it lacks education value because of its lack of adequate elaboration and comparison. General features should be described initially at length with some points of comparison, and differences being pointed out only in individual entries. The number of entries per page could be reduced, and *MIMS* should be more selective in its entries—for example, why include so many tonics, cough remedies, antidiarrhoeals, and non-steroidal anti-inflammatory drugs in the Indian version? The Indian version of *MIMS* needs several other improvements as noted above.

Drug advertisements continue to be irrational. Larger numbers of advertisements have been analysed before with similar conclusions.[1,2] In the United Kingdom the code of practice of the Association of the British Pharmaceutical Industry[3] regulates drug advertising and is said to be broken commonly.[4] The Indian Drug Manufacturers' Association seems to have a code of practice like that of the Association of the British Pharmaceutical Industry; the Indian edition of *MIMS* follows the code of the International Federation of Pharmaceutical Manufacturers' Associations, and both these codes seem to have been broken in many cases in our study. There is clearly a need for tough codes and laws; equally important is their rigorous implementation, particularly in developing countries. While the drug indexing journals in India continue to increase and become more powerful, prescribers need to be reminded periodically of their own limitations and the general credibility of drug advertisements.

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Vertebral deformities as predictors of non-vertebral fractures

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The estimated number of people fracturing a hip will increase from 1·7 million in 1990 to 6·3 million in 2050.[1] It is therefore important to identify risk factors.[2] Previous vertebral fractures have been shown to increase the risk of subsequent vertebral fractures.[3] The degree of spinal deformity may, however, indicate the bone quality of the whole skeleton. We investigated the association between vertebral deformities and new non-vertebral fractures.

Subjects, methods, and results

This nested case-control analysis was carried out within a larger prospective follow up investigation of disease in elderly people.[4] We studied 40 subjects who had a non-vertebral fracture on average 582 (range 287-1028) days after entering the larger study. Controls were subjects who had not had a non-vertebral facture during 648 (range 113-1072) days of follow up and who were patients of the general practitioners of the patients with fracture.

On entering the study patients were asked about hip and wrist fractures in the past five years, history of hip fracture in parents or siblings, and frequent falling (more than once a month). Vertebral heights were measured from lateral radiographs and ratios were calculated according to Melton *et al.*[5] A grade I or grade II deformity was recorded in a vertebra if one of the ratios was smaller than a reference value minus 2 SD or 3 SD, respectively. A mild spinal deformity was defined as one to three grade I vertebral deformities and at most one grade II deformity, and a severe deformity as more than three grade I or more than one grade II deformities. Radiographs of the spine were unavailable in one case and in two controls. We measured bone mineral density at the femoral neck by dual energy *x* ray absorptiometry. The associations of baseline variables with new non-vertebral fractures were expressed as relative risks adjusted for age and sex.

Ten patients had fractures in the hip, 17 in the radius or ulna, and 13 elsewhere. Mean age was 74·7 (SD 8·5) years in cases and 74·4 (SD 7·6) in controls; 90% of subjects were women. Subjects with a history of a wrist or hip fracture had a significantly higher risk (relative risk 3·1, 95% confidence interval 1·1 to 8·6) of fracture. A family history of hip fracture (2·0, 0·6 to 5·9) and frequent falling (4·7, 0·8 to 26·2) did not significantly increase the risk of fracture. The highest quartiles of bone mineral density (0·3, 0·1 to 1·1) and body mass index (0·8, 0·3 to 2·4) were associated with a non-significantly decreased risk.

The table shows the increasing relative risk of incident non-vertebral fractures with increasing spinal deformity. Adjustment for bone mineral density did not affect the risk estimates. The relative risks were also similar after other variables were adjusted for.

Relative risk of baseline spinal deformation for new non-vertebral fractures

	Cases (n=39)	Controls (n=210)	Relative risk* (95% confidence interval)	Relative risk† (95% confidence interval)
No spinal deformity	12	94	1·0 (reference)	1·0 (reference)
Mild spinal deformity	19	100	1·6 (0·7 to 3·5)	1·5 (0·6 to 3·4)
Severe spinal deformity	8	16	4·4 (1·5 to 13·3)	4·1 (1·3 to 12·4)

*Adjusted for age and sex. P=0·026, Mantel test for trend.
†Adjusted for age, sex, and bone mineral density in the femoral neck. P=0·015, Mantel test for trend.

Comment

We found a strong relation between spinal deformity and subsequent non-vertebral fractures that was independent of bone mineral density. Our findings agree with the observations by Ross *et al* that previous vertebral fractures predict future vertebral fractures.[3]

There are at least two explanations of our findings. Firstly, an increased thoracic kyphosis caused by multiple vertebral deformities could shift the centre of

gravity forward increasing the frequency of falling over. However, the relation of vertebral deformities with risk of fracture was independent of frequency of falling. Secondly, and we believe more likely, vertebral deformities may reflect impaired bone strength in the whole skeleton since the relation was independent of bone mineral density. We conclude that by assessing the degree of spinal deformity patients with a fourfold increased risk of future non-vertebral fractures can be identified.

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Use of translated written material to communicate with non-English speaking patients

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To communicate with patients we must provide information in a form that they can understand. This is particularly true for patients from ethnic minority groups who do not understand written or spoken English.[1] For these patients documents are translated into appropriate languages (or dialects). If, however, these patients cannot read then our efforts are fruitless and we must consider other ways of communicating. A recent survey of the Bangladeshi population in Leeds showed that 49% could not read or write English and 35% could not read or write Bengali.[2] We looked at literacy rates among non-white patients in Bradford with regard to their first or any language.

Patients, methods, and results

In Bradford's hospitals 10 liaison workers provide the language services. Between January and April 1993 they gathered information on 1000 non-white patients who either attended a clinic or were helped as inpatients. The inpatients were mostly non-English speaking, but the outpatients were a true population sample. We gathered data on the patients' first language, English, and any other languages they understood. Ability to read and write was graded as fluent, partial, or absent. We asked about length of residence in Britain. We analysed 425 obstetric patients separately.

The overall rate of complete illiteracy was 58·8% but varied among language groups (table). In the obstetric patients the rate was 58·1% (247/425). In all, 57 of the 176 (32·4%) patients who had some understanding of written English had partial understanding (44 of the 57 (77·2%) obstetric patients). Of the 205 patients who had some understanding of written information, but not in English, 73 (35·6%) had partial understanding (47 of 118 (39·8%) obstetric patients). The average length of residence in Britain for the patients who were illiterate was 11·82 years (range 0·1-40).

Ability of 1000 non-white patients in Bradford to read or write in English or other languages. Values are numbers of patients

Patients' first language	In English (n=176)	In Urdu but not in English (n=205)	In first language only (n=31)	No ability in any language (n=588)
Bengali	8	1	2	22
English	1	0	0	0
Gujerati	9	0	19	5
Hindi	2	0	0	4
Hinko	1	1	0	5
Kashmiri	1	0	0	0
Malayaim	1	0	0	0
Miripuri	37	16	9	60
Pushto	6	1	0	15
Punjabi	77	132	1	398
Urdu	33	54	0	79

Comment

A recent report by the Audit Commission highlighted the adverse effects of poor communication in non-English speaking patients and suggested that hospitals need to plan language services.[1] In our obstetric unit 30% of deliveries are to non-white mothers and it is important for us to communicate adequately with them. This survey is part of the process of improving communication.

We have shown a high rate of illiteracy in the non-white patients who attend Bradford hospitals, which supports our impression. The rate is higher than the 35% rate found in the Bangladeshi population of Leeds.[2] Even if we allow for having missed some patients who understood English the illiteracy rate in the non-English speaking patients whom we surveyed was 71·4% (588/824) overall and 67·1% (247/368) in the obstetric patients. Although in Bradford we try to provide as much written information as possible in a wide variety of languages, our efforts may not be improving the dispersal of information. Providing written information in Urdu alone (which would reach 86·9% (205/236) of the literate non-English speaking patients) might be sensible.

We wish to use the information from our study to try to improve our language service. We have produced audio tapes of some information[3] and are also working on video tapes in different languages. We believe that producing information in these forms is a better use of resources than simply providing written information. If written information is often unhelpful in the elective setting it will be more so in the acute setting. Purchasers should therefore recognise the value of interpreting services in areas such as labour suites and casualty units. They must also realise, however, that these services would need to be adequately resourced.

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