A diet sheet in English had had the diet satisfactorily explained compared with three out of four who received a sheet in the native language and seven out of the 11 who received a sheet in both languages. Therefore 48 of those given diet sheets had them satisfactorily explained—the same proportion as had altered their eating habits.

Comment

This survey raises some interesting problems about communication with Asian diabetics. For two years our dietitians have not distributed diet sheets in Asian (available in Punjabi, Gujarati, Hindi) unless they were certain of the patient’s literacy. Over this period only 12 diet sheets in Asian were distributed among 216 patients. This and the small proportion of patients who noticed the multilingual signs suggest that the claimed literacy rate may be exaggerated.

Twenty-eight per cent of those given diet sheets in English and 36%, of those given both English and Asian diet sheets modified their diet when a satisfactory translation was obtained. Improved communication might lead to better adherence to diet, but Asian women usually cook for the family and have a high illiteracy rate so that dietary modification presents particular problems. The encouraging fact that two-thirds of patients tested their urine and most recorded results probably reflects the verbal teaching, the simple method, and the use of interpreters.

Our data suggest that patient education could be improved by better communication and to this end we are producing a film dubbed in Asian languages for use in a diabetic clinic.

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Psychomimetic effects of pentazocine and dihydrocodeine tartrate

Psychomimetic disturbances such as hallucinations, euphoria, and vivid dreams have been reported after taking pentazocine,1-3 but their incidence with this or other commonly used analgesics is unknown.4 This study aims to assess the frequency of perceptual disturbances after the administration of pentazocine or dihydrocodeine.

Patients, methods, and results

General medical and surgical patients in Aberdeen hospitals who had taken pentazocine or dihydrocodeine were included in the study. We tried to find a control group of patients similar in age, sex, and diagnoses and who had received any drug other than pentazocine or dihydrocodeine. Patients taking pentazocine and dihydrocodeine, identified in a standard drug record, were interviewed to determine details of drugs they had taken that day. They were interviewed again within 15-22 hours of taking the chosen dose of pentazocine or dihydrocodeine by one of two other investigators (JFD, SCG) who had no knowledge of the drug given. Control patients had identical interviews. The interviews concentrated on the chosen dose of the drug and included questions on common side effects and psychological phenomena as well as “dummy” questions. Further details about each patient including concurrent drugs, diagnoses, height, weight, serum bilirubin, and urea were then recorded. Seventy-seven patients taking pentazocine or dihydrocodeine on a second occasion were reinterviewed. Patients who gave unreliable histories and those with impaired hepatic or renal function were excluded.

Out of the 407 patients interviewed, 105 (58 men, 47 women) had taken pentazocine and 112 (61 men, 51 women) dihydrocodeine. 190 controls were also interviewed, and 71 patients on pentazocine and 93 on dihydrocodeine were matched with suitable controls. A further 26 potential controls could not be found because of rare diagnoses in patients taking pentazocine or dihydrocodeine. Patients taking pentazocine had significantly more hallucinations than their matched controls (see table). Overall, 10 patients (8 men) taking pentazocine had a major disturbance as compared with five (2 men) taking dihydrocodeine and two in the control group. The commonest phenomena were sensations of floating and auditory and visual hallucinations. A further 10 patients on pentazocine (5 men) and four patients (3 men) on dihydrocodeine had remarkably vivid dreams compared with four of the 190 controls. The chosen dose was usually the first dose to be given. There was no difference between the three groups in this respect. Of the 77 patients who were reinterviewed, two (men) of the 28 receiving pentazocine and one of the 49 receiving dihydrocodeine had hallucinations, which they had not had when first given the drug. Five of the 17 patients who had had a major disturbance were among the 77 who were reinterviewed. Only one of them had a mild disturbance on the second occasion.

The drugs were given in the usually recommended doses, and no relationship was observed between the occurrence of phenomena and the route or frequency of administration of the dose. Out of 494 blind interviews one investigator conducted 274, identifying nine episodes, the other 210, identifying eight episodes. A wide range of concurrent drugs was prescribed for the three groups but no bias arising from their potential effects was evident.

Comment

In this study 10% of patients taking pentazocine had a major psychomimetic disturbance while a further 4%, had vivid dreams: 4% of patients taking dihydrocodeine had a psychomimetic disturbance and a further 4%, had disturbed dreams. Two controls (1%) had a hallucination and a further 2%, had disturbed dreams. Psychomimetic phenomena are difficult to identify. Patients may fail or be reluctant to report a strange experience. Doctors may fail to relate a disturbance to concurrent therapy. Pleasure hallucinations may increase the potential for drug abuse. Therefore the possibility of such phenomena occurring in patients taking analgesics should be remembered.

We thank the physicians and surgeons in the Aberdeen teaching hospitals for permission to interview their patients, and Miss Dingwall-Fordyce for statistical advice. We acknowledge the financial support given by the Scottish Home and Health Department and the Department of Health and Social Security to the Medicines Evaluation and Monitoring Group.

2 Medicines Evaluation and Monitoring Group, British Medical Journal, 1974, 1, 305.
4 British Medical Journal, 1974, 1, 397.

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Incidence of hallucinations in patients taking pentazocine and in patients taking dihydrocodeine compared with incidence in patients taking a control drug

<table>
<thead>
<tr>
<th>Drug</th>
<th>Matched pairs</th>
<th>No in groups</th>
<th>No with hallucinations</th>
<th>Total</th>
<th>P value</th>
<th>Confidence limits</th>
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<tr>
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<td>8</td>
<td>79</td>
<td>0.003</td>
<td>93</td>
<td>71-93</td>
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<tr>
<td>Dihydrocodeine</td>
<td>34</td>
<td>2</td>
<td>36</td>
<td>0.003</td>
<td>93</td>
<td>71-93</td>
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</table>

Significance of differences

<table>
<thead>
<tr>
<th>Drug</th>
<th>Significance of differences</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentazocine</td>
<td>SE = 5.31</td>
<td>93</td>
</tr>
<tr>
<td>Dihydrocodeine</td>
<td>P = 0.003</td>
<td>2</td>
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