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The use of high dose lormetazepam in psychiatric in-patients M. Ansseau, M.D., A. F. Dawson.* M.B., Ch.B., and F. Champion,** M.D.

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An open study was carried out in 19 severely disturbed psychiatric in-patients to assess the effectiveness of lormetazepam in improving particularly resistant insomnia. Patients were given single doses of lormetazepam up to 6 mg nightly. i.e. 3-times the maximum recommended daily dose, over a mean period of 30 days. Subjective response to treatment was assessed as 'good' in 18 and as 'fair' in the remaining patient. No adverse effects or drug interactions with a wide variety of psycho-active drugs given concomitantly were noted. Mild 'hang-over' effects only were reported in 5 patients.

Key words: Lormetazepam - benzodiazepine tranquillizers - sleep disorders

Introduction

Lormetazepam is a new 1,4 benzodiazepine which has undergone extensive clinical evaluation throughout Europe. Following oral administration, lormetazepam has been shown to be rapidly absorbed, therapeutic levels being achieved within half an hour.² The plasma concentration is observed to decrease in two phases: the first phase has a half-life of approximately 2 hours (partition phase) in both young and elderly patients and the second phase (elimination phase) a half-life of approximately 10 hours in young subjects and approximately 14.5 hours in elderly subjects.¹ Lormetazepam has been shown to be predominantly metabolized to the inactive glucuronide,² with no evidence of accumulation of the active principle on repeat administration.³

The majority of patients receiving lormetazepam will, depending on their age and the aetiology of insomnia, respond well to doses ranging between 0.5 to 2.0 mg daily, the highest dose being required only in the more resistant patients.

In this paper, we report the use of lormetazepam in a group of particularly disturbed psychiatric in-patients with severe insomnia requiring doses of lormetazepam of up to 6 mg nightly.

Patients and methods

Nineteen severely disturbed psychiatric in-patients who also suffered from particularly resistant insomnia were studied in an open evaluation for a mean period of 30 days (± 18.5 days). The group was composed of 8 men and 11 women aged between 23 and 78 years (mean 43 ± 14 years). Details of the diagnoses are presented in Table I.

Diagnosis	No. patients	
Depressive illness	11	
Schizo-affective psychoses	2	
Obsessional neuroses	1	
Phobic neuroses	1	
Chronic alcoholism	1	
Refractory insomnia	1	
Paranoid schizophrenia	1	
Psychosomatic disorders	1	
Total	19	

Table I. Diagnosis of the patients entered in the study

Lormetazepam was introduced at a dose of 2 mg nightly and was increased by 1 mg every 2 days until either the sleep disturbance was controlled or a maximum dose of 6 mg nightly was reached. As the clinical symptoms improved, the dose of lormetazepam was gradually reduced. The maximum doses of lormetazepam administered were 4 mg in 3 patients, 5 mg in 8 patients and 6 mg in 8 patients.

Patients were assessed clinically with regard to the efficacy and acceptability of the drug. A particular note was made of the presence or absence of 'hang-over' effects, assessed as tiredness on the day following treatment. In addition, any adverse effects were recorded.

A number of patients received concomitant medication, details of which are given in Table II.

Results

The mean maximum daily dose of lormetazepam administered was 5.26 mg $(\pm 0.72 \text{ mg})$.

The subjective response to treatment was assessed as 'good' in 18 patients and 'fair' in the remaining patient. No 'hang-over' effects were recorded in 13 patients, and slight 'hang-over' effects in 5 patients. One patient was not assessed. In no patient was the 'hang-over' effect recorded as being severe. No side-effects due to administration of lormetazepam were reported.

Discussion

Although the patients studied were a highly selected group of severely disturbed psychiatric cases, the results clearly suggest that lormetazepam has a high thera-

Drug	No. patients
Amitriptyline	2
Clomipramine	2
Clonazepam	1
Disulfiram	1
Dothiepin	2
Fluspirilene	1
Haloperidol	2
Lithium	1
Lorazepam	2
Maprotiline	1
Nialamide	2
Nomifensine	1
Pimozide	1
Procyclidine	2
Propericiazine	1
Propranolol	2
Prothipendyl	1
Sulpiride	3
Tiapride	2
Zimelidine	1

Table II.	Concomitant	medication	received	bv	patients
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peutic index in that response was assessed 'as good' in 18 of the 19 patients and as 'fair' in the remaining patient. At doses of up to 3 times the normal maximum recommended daily dose, no adverse effects were noted and in only 5 cases was a 'hang-over' effect reported. Of these 5, 1 patient was receiving specific therapy which produced sedation and in the other 4 the effects were only reported as being mild. One other case could not be classified.

A further interesting point is the wide variety of psycho-active drugs listed in Table II which were given concomitantly, without any untoward drug interaction in any patient.

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