Discussion

With so many missing returns no conclusions could be drawn as regards mortality and morbidity, though the main reason for failure to return the questionnaire was the migratory nature of these patients and frequent change of addresses. Nevertheless, of the returns received 80% of the patients were at full work and only 5% capable of no work whatsoever of any sort, the remaining 15% being capable of modified, light, or occasional duties. These figures are the most encouraging we have in the rheumatism unit—far better than those for rheumatoid arthritis. 110 of 191 patients considered their general health good or excellent and only 10 poor.

As regards the most popular of the drugs used it is of interest that aspirin in some form, compound codeine tablets, and phenylbutazone were quoted in almost identical numbers, the last-named coming top in this poll by the narrow margin of two votes. It has been our impression in the unit for some time that, if tolerated, this drug is the single most useful one for spondylitics at all stages of their painful disease, and Bauer and Ropes (1956) found it more useful in this disease than in rheumatoid arthritis.

The effect of any drug, however, depends on its regular daily administration; its beneficial effects rapidly disappear on stopping it. In contrast, deep x rays appear, on this survey, to give some degree of lasting relief in many cases, for 32 of 114 patients (28%) obtained some amelioration of symptoms for over four years. Caution is necessary, however, in interpreting these figures, for a course of deep x-ray therapy, like a surgical operation, sticks in the memory as a landmark in the disease course, and subsequent improvement may falsely be attributed to it when, in fact, natural remission has occurred. Improvement, also, is as compared by the patient with pre-treatment symptoms which were severe enough to bring the patient to hospital. One may therefore be comparing symptoms of exacerbation with symptoms of remission, and the therapy given between the two may have been unrelated. A second point to emphasize is that it is impossible on the returns to tell whether symptomatic improvement was great or small; all that can be said is that some measure of symptomatic improvement occurred after therapy.

Wilkinson and Bywaters (1958) found that 43% of 200 irradiated patients required no regular analgesics within a year of completion of therapy, this figure dropping to 22% after a ten-year follow-up. These figures, obtained by clinicians from assessment of analgesic consumption, do not differ very greatly from those obtained by us from an assessment of our patients' own statements.

While I have hitherto been doubtful about the induction of natural remission in this disorder by this form of therapy, there is some indication on these figures that it may occur. The hazards of irradiation are well known, and have latterly received much attention; it is as well to record the reverse side of the coin.

Summary and Conclusions

Question sheets were sent to 343 patients with ankylosing spondylitis, and 209 answers were received. Of these returns, four were from relatives of deceased patients, and five were incomplete. Of the 200 fully completed returns, 179 were from men, 21 from women.

160 (80%) stated that they were working full time; 19 were capable of modified duties, 12 of light or occasional duties; and only 9 were permanently incapable of any work whatsoever.

Of 191 patients who answered questions relating to their general health, 36 stated that it was excellent, 74 good, 71 fairly good, and 10 poor. 11 complained of severe, 38 of moderate but annoying dyspepsia. X-ray examination in 37 cases revealed peptic ulcers in 10.

Of 143 patients given deep x-ray therapy to the spine, 114 (80%) derived some benefit; 41 (28.7%) claimed some measure of lasting relief, which still continues 2 months to 17 years after treatment. Of these 41 patients 27 were irradiated over four years previously. 30 claimed transient improvement lasting six months or less, 18 improvement for periods of seven months to five years, 3 for more than five years. 32 of 114 (28%) of these patients derived some measure of symptomatic relief for periods exceeding four years.

These results once again emphasize the relatively good prognosis as regards work capabilities in this group of patients and a reasonably satisfactory response to existing forms of therapy.

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REFERENCES

- Bauer, W., and Ropes, M. W. (1956). *Practitioner*, 177, 431.
Blumberg, B., and Ragan, C. (1956). *Medicine (Baltimore)*, 35, 1.
Hart, F. D., Robinson, K. C., Allchin, F. M., and MacLagan, N. F. (1949). *Quart. J. Med.*, 18, 217.
Wilkinson, M., and Bywaters, E. G. L. (1958). *Ann. rheum. Dis.*, 17, 209.

VALUE OF AZACYCLONOL ON CHRONIC SCHIZOPHRENIC PATIENTS PRELIMINARY OBSERVATIONS

BY

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Azacyclonol hydrochloride ("frenquel") is the gamma isomer of pipradrol hydrochloride ("meratran"), the latter drug being used in this country as an antidepressant agent. Chemically, azacyclonol is α -(4-piperidyl) benzhydrol hydrochloride. Despite its structural resemblance to pipradrol, azacyclonol has been reported to possess different clinical properties inasmuch as it exerts a tranquillizing effect.

Both mescaline and L.S.D.25 have been reported to produce states resembling schizophrenia. Fabing (1955a, 1955b, 1955c), working in the United States, has reported a series of controlled experiments on "normal" volunteers who were each given L.S.D.25. This dose produced a characteristic psychosis with symptoms resembling schizophrenia. The experiment was then repeated, but some of the volunteers were given a course of azacyclonol prior to the administration of the L.S.D.25 and the other volunteers were given control tablets. It was observed that, although the effects of L.S.D.25 began as usual, the more acute symptoms were inhibited in the patients who had been pretreated with azacyclonol. The vivid hallucinatory experiences were absent and some of the group even succeeded in carrying out their normal duties. It would appear from this work that azacyclonol has some blocking effect in experimental psychosis or clinical conditions of disorientation.

The nature of this neurochemical effect is not yet fully understood.

Fabing and Hawkins (1955) have reported on clinical trials with azacyclonol in a series of acute and chronic schizophrenic patients. It appears that azacyclonol affords schizophrenic patients some amelioration of

their symptoms and that it might be a useful addition to the ataractic group of drugs. It was therefore decided to attempt a controlled study of the value of azacyclonol in a group of chronic schizophrenic patients.

Method

Twelve female patients were selected. Their ages varied from 19 to 54 years, with an average of 36.9. The 12 patients were then divided equally into groups known as A and B. The total period of the trial was to be 12 weeks. For the first six weeks the six patients in group A received azacyclonol and the remainder (group B) received identical placebo tablets. The converse of this arrangement was used for the second six weeks.

The experiment was conducted by the usual "double blind" technique. The issue of the tablets was controlled by a member of the male nursing administrative staff who did not know the patients concerned in the trial, and selected the patients for the two groups in a random manner. Until the period of the trial was complete no one else knew which patients were receiving active and which inert material, and all observations were made before the key was broken. During this time none of the patients selected received any other forms of medication, with the exception of one patient, a chronic asthmatic, whose ephedrine, $\frac{1}{2}$ gr. (32 mg.) daily, was continued.

All patients were interviewed prior to the beginning of the trial and their type of schizophrenia was classified as follows: simple, 1; katatonic, 2; hebephrenic, 3; paranoid, 6 (see Table).

The following adjustments were made in ward routine to facilitate observation of the patients. Nurses were instructed to make notes on their patients' behaviour in a special book, with emphasis on the following points: (1) hallucinations, commenting whether patients behaved as if hallucinated or admitted to hallucinatory experiences; (2) degrees of accessibility of patients to friendly approaches by staff or whether hostile, aggressive, or asocial; (3) helpfulness in ward; willingness to partake in household duties and to show initiative with regard to these; (4) response to efforts of staff to keep them tidy in dress and clean in habit; and (5) whether interested in hair styles and responsive to normal use of cosmetics.

Handicraft classes took place in the ward and not in the occupational therapy centre, to maintain continuity in the observation of the patients. The nursing staff assisted at the occupational therapy and accompanied the patients when they were engaged in activities outside the ward—for example, dancing classes, P.T. classes, and walks.

Results

Patient	Classification of Illness	Therapy During Phase 1	Observation During Phase 1	Observation During Phase 2
J. P.	Simple	Azacyclonol	Improved	Deteriorated
M. N.	Hebephrenic	"	No change	No change
O. S.	"	"	No change	No change
T. S.	Paranoid	"	Improved	Maintained improvement
J. T.	"	"	Improved	Maintained improvement
K. B.	"	"	Much improved	Deteriorated
M. P.	Katatonic	Placebo	No change	No change
O. R.	Hebephrenic	"	Slight improvement	Improvement maintained
K. G.	Paranoid	"	No change	No change
M. B.	"	"	Deteriorated	Much improved
M. Bu.	Katatonic	"	Improved	Improvement maintained
J. K.	Paranoid	"	Deteriorated	Much improved

Results

Three patients were much improved when receiving azacyclonol. These three patients had several features in common. They were all paranoid schizophrenics, hallucinated, and hostile. They were also asocial, with a tendency

to be aggressive if disturbed. Here are summaries of their case histories.

J. K., aged 29. She was suspicious and at times violent, responding to auditory hallucinations and delusions of persecution. On placebo (phase 1) she deteriorated. On azacyclonol she improved and became more accessible. She did not appear so distressed by hallucinations and co-operated in various occupational activities. Her condition deteriorated again after cessation of the trial.

K. B., aged 49. She was sullen, asocial, and suspicious, with no insight. She experienced auditory hallucinations, during which she heard voices of men planning sexual assaults. She had occasional outbursts of physical violence. Her behaviour improved with azacyclonol. She became friendly, co-operative, and helpful with regard to domestic duties. She did not appear to be hallucinated, and denied hallucinatory experiences. Previously she had freely admitted these. Her behaviour deteriorated steadily throughout the placebo phase and the subsequent period after the trial.

M. B., aged 54. At the time chosen for this trial this patient was almost constantly hallucinated. All day long she carried on noisy and interminable conversations with hallucinatory voices. These outbursts often continued far into the night. It was with considerable fortitude that the nursing staff bore with her behaviour and adhered to the rule that nothing other than azacyclonol or placebo should be used during the trial. On azacyclonol her behaviour improved and she became much quieter. She took part in occupational therapy and her hallucinations appeared to diminish in force and intensity.

It will be observed also that two other paranoid schizophrenics displayed no appreciable change throughout the course of the trial. Both of these patients (K. G. and T. S.) had histories of being hallucinated, but did not appear to be so at the time of the trial. Both had well-preserved personalities despite the chronicity of their illnesses, and both had delusions of the paranoid type. It will be appreciated that it is more difficult to observe changes in this type of patient than in the more grossly disintegrated personalities of K. B., M. B., and J. K.

Five further patients showed some improvement in the azacyclonol phase. One of these maintained her improvement later on placebo, but two deteriorated in the placebo phase.

O. R. showed some improvement on placebo in phase 2 but deteriorated after cessation of all tablets.

Discussion

The number of patients selected for this trial was small because it was felt that it would be difficult to assess accurately a larger number of patients. It must be remembered that the nursing staff conducting this trial also had the responsibilities of their routine ward duties.

Conflicting reports have been published referring to the use of azacyclonol. It has been suggested that its major use is for hallucinated patients where the hallucinations are of either schizophrenic or toxic origin (Fabing and Hawkins, 1955).

Later publications, such as reports by Ferguson (1956) and Cohen and Parlour (1956), have shown that higher doses than those used in the trial may be more effective. Recent work with azacyclonol in this hospital has confirmed these observations. It is possible that the principal use of this drug lies as an adjunct to other forms of therapy, when quite noticeable improvement may sometimes be obtained. Fortunately, even in combination, high doses of azacyclonol can be given, as it appears to be completely free from all forms of toxicity and side-effects.

During the early part of the trial detailed blood tests were carried out on all patients, but as no change could be detected this procedure was considered unnecessary and deleted from the programme.

Summary

A study of the effect of azacyclonol on 12 schizophrenic female patients is reported.

The double blind technique was used throughout with the dose standardized at two tablets three times a day (120 mg. daily). In every case all other psychiatric treatment was withdrawn for the duration of the trial.

Substantial improvement was noticed in three patients and some improvement in a further five.

No side-effects were noted.

It would appear that further trials with this drug in disturbed hallucinated patients would be justified and possibly very helpful.

I should like to thank Dr. D. F. Macgregor, medical superintendent of Carlton Hayes Hospital, for his co-operation and assistance with the trial. Also Mr. Mills, senior technician, Mr. Cannings, and other members of the nursing staff. My thanks are also due to Mr. B. A. Weightman, of Riker Laboratories Ltd., who kindly supplied the azacyclonol used in the trial.

REFERENCES

- Cohen, S., and Parlour, R. R. (1956). *J. Amer. med. Ass.*, 162, 948.
 Fabing, H. D. (1955a). *Neurology*, 5, 603.
 — (1955b). *Ibid.*, 5, 319.
 — (1955c). *Science*, 121, 208.
 — and Hawkins, J. R. (1955). *Dis. nerv. Sys.*, 16, 329.
 Ferguson, J. T. (1956). *Antibiot. Med.*, 3, 146.

AN AFRICAN'S MENTAL OUTLOOK IN BRITAIN

BY

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"Were all the circumstances, internal and external, scanned closely and weighed accurately it would be seen that there is no accident in madness" (Maudsley, 1879).

To-day, considerable effort is being expended on establishing "scientifically attested knowledge" about how to keep normal persons mentally healthy (Bartlett, 1949). How to maintain the mental health of university students is a serious problem (Parnell, 1951; Gibson, 1953). Indeed, tuberculosis and mental diseases are "the two major medical problems among undergraduates" (*Practitioner*, 1957).

Immigrants suffer mental ill-health more commonly than do the indigenes (Hill, 1943; Crew, 1955). It stands to reason that the mental health of foreign students must be an even graver problem than that of the British-born.

Otis (1955), of Illinois University, has discussed the mental-health problems of foreign students in America. He recommended that "in order to better prepare future students" there was need to analyse problems "met by one's countrymen who have been students abroad." I wish, therefore, to report my own experiences while studying in Britain. It is hoped that this may be of some help to those who are in a position to counsel foreign students.

Writing on colour prejudice in Britain, Richmond (1954) stated that "examples can be cited of psychotic individuals whose behaviour is clearly conditioned by the conflicts that they have experienced through racial prejudice in this country." Sclare (1953) also drew attention to the effect that racial discrimination has on the neurotic pattern seen among American negroes.

If colour prejudice can thus undermine mental health, in what way may the negro student be safeguarded? In presenting my own solution I have in mind what Max-

well (1871) told a meeting of the British Association for the Advancement of Science in 1870: "It was a great step in science when men became convinced that, in order to understand the nature of things, they must begin by asking, not whether a thing is good or bad, noxious or beneficial, but of what kind is it? and how much is there of it?"

Present Investigation

Human beings are "notoriously elusive subjects for objective study and quantitative measurement" (McCalman, 1953). An objective assessment of discriminatory trends in a British city has been made, using a simple, measurable, behavioural quantity—namely, the presence or absence of courtesy in a public utility.

Between November 22, 1954, and November 8, 1955, whenever I paid my fare in any Glasgow Corporation transport I took careful note of whether my fare was accepted with thanks or not with thanks. As a control, I observed whether a European passenger, whose fare was taken just before, or, failing that, just after mine, was thanked or not.

In all, 500 journeys were made. Three types of data were obtained and entered in my diary, each record being made soon after the journey.

Type I—408 cases in which a European fellow passenger and I were both courteously thanked; type II—73 cases in which neither of us was thanked; type III—19 cases in which a European was thanked but I was not. In no case was I thanked but not a near-by Caucasian.

Discussion

It was Lord Lytton (1956) who said that "courtesy is a duty public servants owe to the humblest member of the public." Indeed, the General Manager of Glasgow Corporation Transport Department (1955) reported that his "greatest difficulty is to inculcate amongst the staff a spirit of courtesy and pride of service." Since courtesy is valued so highly in Britain, this social grace is a dependable criterion for a scientific analysis of discriminatory behaviour in this country.

From the above analysis we see that in only 19 cases out of 500 was there acceptable evidence of discrimination. This finding is not statistically significant ($\chi^2=0.72$, $P<0.05$).

The 73 type II cases are noteworthy. Each is potentially fraught with the danger that the negro might think that there was discrimination. If he is not to think so, then comparable discourtesy to Europeans travelling with him has first to be observed. How often, we may well wonder, would such a controlled observation be made in everyday life? Kenneth Little (1947) has said that the negro in Britain may often suspect discrimination and aloofness "where they were never intended." I think that this is true.

What clinical clue, if any, does this conclusion contribute? Weinberg (1955) found that "too frequent and embarrassing uncertainties may lead to inner insecurity, or cause a latent insecurity to become overt." Or, as Hume (1947) put it, sociological factors may undermine mental health by "multiplying precipitating situations." Consequently, the negro student who overestimates prejudice multiplies psycho-social trauma and runs a graver risk of mental breakdown. It is in his own interest that he does not make this mistake.

Admittedly, other investigations may yield a different result; for example, if a criterion other than courtesy is employed. Nevertheless, we may conclude that if there is insight into the difference between real and imagined prejudice the probability is that the threshold of what is unbearable will not be approached. Mental hygiene requires that "environmental difficulties should not be excessive" (Stevenson, 1945). As Bartlett (1949) also said, "there are limits of toleration, both environmental and internal, the persistent passing of which leads to mental trouble."

In education for mental health, correct perception of reality is important (Florence Clothier, 1951). If other