PRACTICE OBSERVED

Practice Research

Antidepressant drugs in the elderly: Are the indications as long term as the treatment?

ANTHONY J DUNCAN, A JOHN CAMPBELL

Abstract

In a community study of 761 people aged 70 years and over 45 (5.9%) were found to be taking long term tricyclic antidepressants. Forty four were compared with matched controls. There was no evidence that tricyclic antidepressants were being used to compensate for poor physical health or function. Twenty subjects had a clear history of depression; three of these required additional treatment and five might have coped without continued drug treatment. Twelve of the remainder had started treatment with tricyclic antidepressants as hypnotics and 11 as a trial because of suspected depression. They had continued taking the drugs over a long period.

Regular review of both the adequacy of and the necessity for continued treatment with tricyclic antidepressants in the elderly is recommended.

Introduction

There are problems associated with the long term use of psychotropic drugs. Most attention has been directed to the neuroleptics because they may induce tardive dyskinesia and to the benzodiazepines because of the problems of abuse and dependence associated with these drugs.

Less attention has been paid to the long term use of tricyclic

antidepressants. This may be because there is, as yet, no well documented evidence of long term complications caused by these drugs. In the elderly, however, their anticholinergic activity, propensity to cause postural hypotension, and effects on cardiac conduction can produce serious side effects.¹

We investigated a sample of people aged 70 years and over who had been taking tricyclic antidepressant drugs for at least one year. The purposes of this study were to determine the factors that distinguished those undergoing long term treatment with antidepressants from controls matched for age and sex and to determine the reasons for starting and continuing treatment.

Patients and methods

Mosgiel is a rural township of 13 500 people situated just south of Dunedin, New Zealand. The town is served by five general practitioners based at the Mosgiel Health Centre. Figures from the electoral roll showed that 94% of people living in the area were registered with the health centre.

The names, ages, and addresses of all people aged 70 years and over were drawn from the records of the health centre. These 825 people were asked to cooperate in a longitudinal study, and 761 (92%) agreed to participate. None of those who refused was taking tricyclic antidepressants.

At the initial interview the research nurse inspected and recorded all drugs being taken by the subjects. Forty five (5.9%) were taking antidepressant drugs, all tricyclic antidepressants. At the end of one year all of these patients were still taking these drugs; they were thus used as the sample for this study. A control sample of subjects matched for age (within five years), sex, and general practitioner was drawn from the health centre records. One subject who was taking tricyclic antidepressants withdrew from the study. The remaining subjects and controls completed the investigations. Each participant was seen on two occasions, first by the research nurse and then by AD, who was initially unaware whether the participant was a subject or a control. At the first visit participants were assessed by the following methods: the first part of the Nottingham health profile²; the list of threatening life experiences³; and the activities of daily living questionnaire.⁴ At the second interview participants completed the 28 item version of the general health questionnaire⁵⁻⁷ and a brief test of cognitive function (the mini

Departments of Psychological Medicine and Medicine, University of Otago Medical School, Dunedin, New Zealand

ANTHONY J DUNCAN, MB, FRANZCP, clinical lecturer in psychogeriatrics
A JOHN CAMPBELL, MD, FRACP, professor of geriatric medicine

Correspondence to: Professor A John Campbell, University of Otago Medical School, PO Box 913, Dunedin, New Zealand.

mental state examination).⁸ Each participant's psychiatric state was assessed clinically. The participants were then asked to show drugs that they were currently taking.

Those subjects taking tricyclic antidepressants were further interviewed to assess their psychiatric history, whether they thought that they benefited from the drug, and how they viewed its continued use. The psychiatric interviews and inspection of the general practitioner's notes were used to determine the reasons for starting and continuing treatment with tricyclic antidepressants.

The Wilcoxon signed rank test for paired samples was used to compare scores in the subject and control groups. The Mann-Whitney U test was used to compare treatment scores between the subgroups taking tricyclic antidepressants. The dosage of the drugs was calculated by assuming all tricyclic antidepressants to be of equal potency.

The study was approved by the ethical committee of the University of Otago Medical School and the Otago Hospital Board.

Results

We categorised all subjects into one of three groups.

GROUP 1

There were 20 subjects in whom there was clear evidence that treatment with the drug had been started during a major depressive episode. Of these 20, three had continuing symptoms, and two of these had received a maximum dose of only 75 mg of a tricyclic antidepressant. Six subjects had improved with vigorous treatment but still had residual symptoms. Five subjects had a history of at least two episodes of depression and were asymptomatic with continuing treatment. One subject had been taking a tricyclic antidepressant for one year and felt so much better that she intended to continue the treatment.

This left five subjects in whom there had been a definite indication for starting treatment with an antidepressant but the reasons for continued treatment were not clear. These subjects had suffered a single episode of depression between four and 23 years previously.

GROUP 2

There were 23 subjects in whom treatment with an antidepressant had been started without a clear history of depression. Twelve were using the antidepressant as a hypnotic. Of these, three had started taking the antidepressant as a change from a benzodiazepine, in seven the antidepressant had been prescribed specifically as a sleeping tablet, and two had started taking the tablets while grieving, specifically to help sleep.

The remaining 11 subjects had started treatment with the tricyclic antidepressant for less specific reasons. Two described being prescribed the antidepressant while grieving. The nine others could not explain why they were taking the tablets. They denied depression but were happy to continue taking the drugs as, they said, "the doctor knows best" or "they don't give them to you for nothing, you know." Inspection of the subjects' notes and discussion with the general practitioners showed that treatment with the antidepressant had been started as a trial to improve mood and had subsequently become part of the patient's regular treatment.

GROUP 3

One man was taking amitriptyline for chronic pain.

DOSAGE AND DURATION

The daily dose of tricyclic antidepressant was significantly greater in group 1 (median 75 mg; range 25-175 mg) than in group 2 (median 50 mg; range 25-100 mg) ($p < 0.05$). There was no significant difference in duration of treatment (group 1 median 7.5 years, range 1-23 years; group 2 median five years, range 3-16 years).

COMPARISONS BETWEEN SUBJECTS AND CONTROLS

The subject and control groups both consisted of 36 women and eight men. The median age of the subjects was 78.0 years (range 71-91 years) and of the controls 78.5 years (range 70-98 years). Only one of the controls had previously been taking a tricyclic antidepressant.

The table shows the scores of the subjects and controls in the tests administered. Only with the Nottingham health profile was there a significant difference between all the subjects and controls, with the subjects having a lower subjective health state. This difference was still significant ($p < 0.02$) when group 1 subjects were compared with their controls ($n = 20$, subjects: median 148, range 0-373; controls: median 83.7, range 0-212). There was no difference, however, between group 2 subjects and their controls ($n = 23$, subjects: median 95, range 22-214; controls: median 84, range 0-373). In response to the general health questionnaire the range of scores was higher in the subjects because two subjects in group 1 had particularly high scores. When only group 1 subjects were compared with their controls, however, there was no significant difference in their scores.

Median (range) scores in subjects and controls, as assessed by various tests

Test	Subjects (n=44)	Controls (n=44)	Significance
Nottingham health profile	109 (0-373)	80 (0-373)	$p < 0.05$
General health questionnaire	2 (0-20)	2 (0-12)	NS
Activities of daily living	1 (0-14)	1 (0-14)	NS
Life events	1 (0-2)	0.5 (0-3)	NS
Mini mental state examination	27 (12-30)	27 (15-30)	NS

NS=Not significant.

Discussion

The prescribing rate for tricyclic antidepressants found in this study was similar to that described in previous studies in New Zealand,⁹ the United Kingdom,¹⁰ and the United States.^{11,12} The sample was drawn from five general practices and participation in the study was high. The prescribing patterns found are probably similar to those in other practices.

Subjects receiving long term treatment with antidepressants had a lower subjective health state than the controls. The difference was significant only in the group who were receiving tricyclic antidepressants for a previous definite depressive illness. Subjective health state was particularly low in those with continuing symptoms of depression and was an indication of low mood. There was no evidence, as judged by the other tests, that antidepressants were being used to compensate for poor physical health or function.

Twenty of the 44 subjects had a clear history of a depressive illness. Depression in the elderly has a recognised chronicity, and those with a history of two episodes of depression usually require long term treatment. Those with residual symptoms also require continued treatment. We identified three subjects who were undertreated. Inadequate response to low doses of tricyclic antidepressants has been described.¹³ Treatment with higher doses of the drugs or alternative measures should be used to treat patients whose depression does not respond to initial treatment.

In the group with a clear history of a depressive illness there were five subjects with a history of a single episode of depression and no further psychiatric symptoms for some years. It is more difficult to justify continued use of an antidepressant in this group. Both the general practitioner and the patient may find it hard to change treatment when things are going smoothly. In some instances the tricyclic antidepressant had originally been prescribed by a specialist psychiatrist, which could have made it more difficult for the general practitioner to convince the patient of the value of stopping the treatment.

About half the group without a clear history of depression were taking the tricyclic antidepressant as a hypnotic. The disadvantages of these drugs as hypnotics are their long action and the number of side effects they may cause. They have been shown, for example, to be more likely than the short acting benzodiazepines to cause elderly people to fall.^{14,15}

The other subjects without a clear history of depression were content to take the drugs without knowing their purpose. In discussion the general practitioners described a group of people who were "less troubled on antidepressants." They may have had a mild biological depressive condition, the "subaffective dysthymia" described by Akiskal.¹⁶ Alternatively, the giving and receiving of these tablets may have become an important part of the doctor-

patient relationship as the doctor helped the patient to cope with aging. The antidepressant had often been prescribed as a trial to improve mood. This is consistent with Raynes's finding that, in general practice, psychotropic drugs are prescribed more often for symptomatic reasons than as a result of a specific psychiatric diagnosis.¹⁷

Once the drug has been prescribed, even as a trial, there are at least two factors that may lead to long term prescription even if there is no pharmacological effect. Firstly, the patient may be happy to take the tablets, not as placebos but as continuing proof of the doctor's concern. Secondly, the doctor may find himself in a difficult position after several months of treatment. If the patient is still somewhat dysphoric he may not consider it to be wise to stop the drug in case the patient gets really depressed. This may be even more difficult if the doctor believes that stopping the tablets will be perceived by the patient as a reduction in the amount of care given.

All 45 subjects initially taking antidepressants were still taking them one year later. Tricyclic antidepressants seem similar to benzodiazepines and phenothiazines in that once treatment has been started it can be difficult to stop. In addition, there may be a tendency to start and continue treatment for anxiety and sleep disorders with tricyclic antidepressants now that the long term complications of benzodiazepines and phenothiazines are recognised. Doctors should be equally careful in prescribing tricyclic antidepressants.

We would make four recommendations. Firstly, when treatment with tricyclic antidepressants is started for a definite depressive illness the doctor should monitor the patient's response carefully as a higher dose or alternative treatment, such as electroconvulsive treatment, may be required. Secondly, it should be explained to the patient that depression is an episodic illness, that recovery is expected, and that the treatment will probably eventually be stopped. Thirdly, if treatment with these drugs is started as a trial in possible depression the patient should be informed that it is a trial and that treatment will continue for a specified time, depending on the response of key symptoms. Fourthly, the possibility of adverse

effects should be evaluated carefully before these drugs are used primarily as hypnotics or as an alternative to anxiolytic drugs in the elderly.

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ONE HUNDRED YEARS AGO

WHETHER nursing is to be regarded as a trade or profession, there can be little doubt that its claims to public sympathy have won for it a place in public esteem very different from that which it was thought possible to attain to a few years ago. Many causes have contributed to this result. Perhaps the most influential of all can be traced to the establishment of nurse training schools in most of the large and in some of the smaller hospitals where young women of good character and antecedents, as well as gentlewomen, are initiated to the work. With its progressive development, it is not surprising that there should be a desire expressed to regulate the employment, by instituting an educational curriculum to which all nurses should be subject. Upwards of a year ago a movement was set on foot by the Hospitals Association having this object in view, as well as to consider the expediency of establishing a collective register for qualified nurses, since there was every reason to expect that at no distant date the whole subject of their educational training and the practice of their art might be considered worthy of legal supervision. From inquiries made at the chief hospital centres it appears very doubtful whether the matter is ripe for adjustment, nor is there any agreement among the authorities consulted as to the body to whom such a power should be delegated. The whole question is bristling with difficulties, not likely to be lessened by the ardour of the enthusiasts who are now loudly clamouring for legislation on their behalf, without giving a thought of the dangers in their path. We have the greatest possible sympathy with the women and their work, but we are not prepared to follow the lead of any association which professes to represent the vocation, far less to promote legislation in its behalf, without first ascertaining from an exhaustive inquiry what are the needs and wishes of the many. The heterogeneous character of the class now following nursing as a means of livelihood, and the various branches of the art practised in town and country, render it very inadvisable that it should be placed under an exclusive jurisdiction. The important interests involved, ranging from those of the cultured lady-superintendent

to the nurse who dispenses her medical comforts to the village poor, are numerous and conflicting; nor is it the technical knowledge or hospital experience, however valuable, which renders the nurse best fitted for her work. Too little account is taken of those natural gifts of temper, tact, and disposition, which cannot be registered, but which after all contribute more essentially than anything else to the formation of character in a nurse. Nor is it to be supposed that the midwife, the monthly nurse, and the masseuse or other specialist can take common ground with the certificated hospital nurse, who has spent some of the best years of her life at a small remuneration, that she may arrive at a supposed standard of efficiency, or, rather, that she may conform to the exigencies of the hospital in which her lot is cast. It is but fair that the distinctive terms "binding" and "training," which in practice are almost synonymous, should be better understood. The binding renders the probationer subject to a moral contract to continuous employment for periods varying from two to three or more years, and may prove advantageous to herself, as it certainly does to the hospital which receives her services, but it hardly meets the approval of charitable and other agencies, which must be at the cost of training their own nurses in separate institutions, for the special duties they will afterwards be called on to perform. Co-operation is, no doubt, a good thing when it can be managed without friction, but, in the face of the great diversity of opinion which exists on the subject, coupled with the manifest obstacles to harmonious action inherent in a novel organisation, the question of collective nurse-registration is not ripe for solution. Let each hospital and training school look well to its own register, and to the educational facilities afforded to its nurses, so that it may be possible in the course of time to adopt one uniform basis which would be acceptable alike to the leading hospitals, the profession, and the public.

(British Medical Journal 1888;ii:920)